Administration Report of the Public Works Department in the Bombay Presidency for the Year 1928-29.

Part I

With a detailed review of the Civil and Military Works

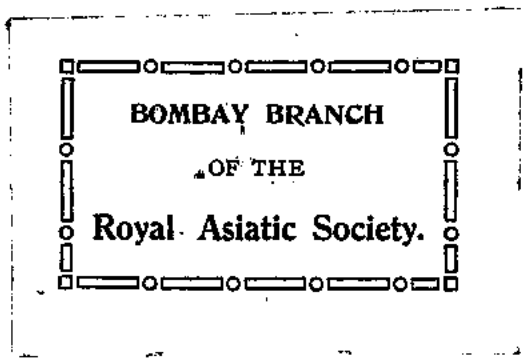
(Part II—Irrigation Works with Accounts and Statistical Statements—is issued separately)

LIBRARY OF THE BOMBAY BRANCH OF THE ROYAL ASIATIC SOCIETY.

[Price—Rs. 2 As. 2 *or* 4*s*.]

BOMBAY
PRINTED AT THE GOVERNMENT CENTRAL PRESS
1930

Obtainable from the Superintendent, Government Printing and Stationery, Bombay, or through the High Commissioner for India, India House, Aldwych, London, W.C.2, or through any recognized Bookseller



with financial assistance
Government of Maharash
on 22 July 2017

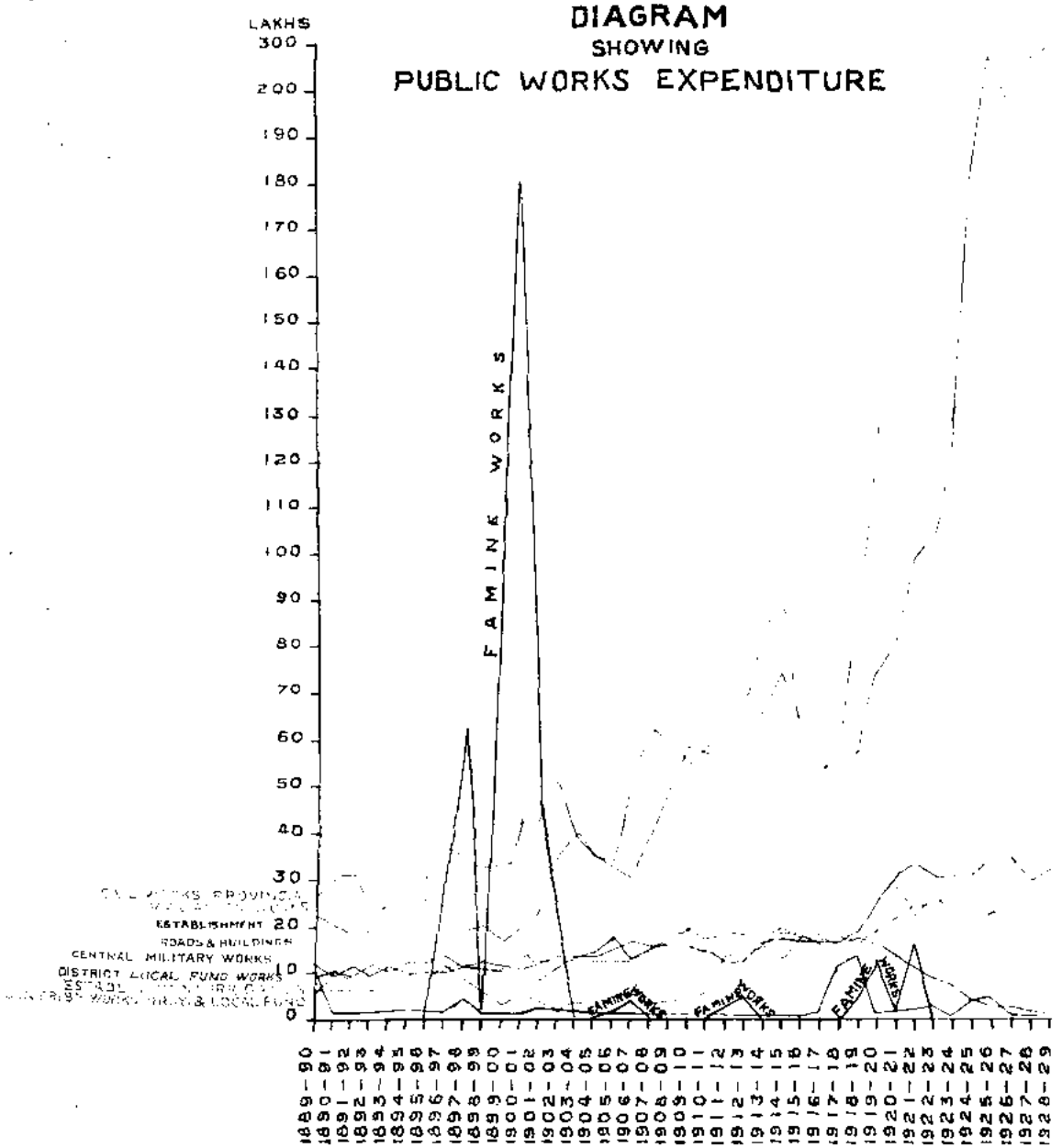
CONTENTS

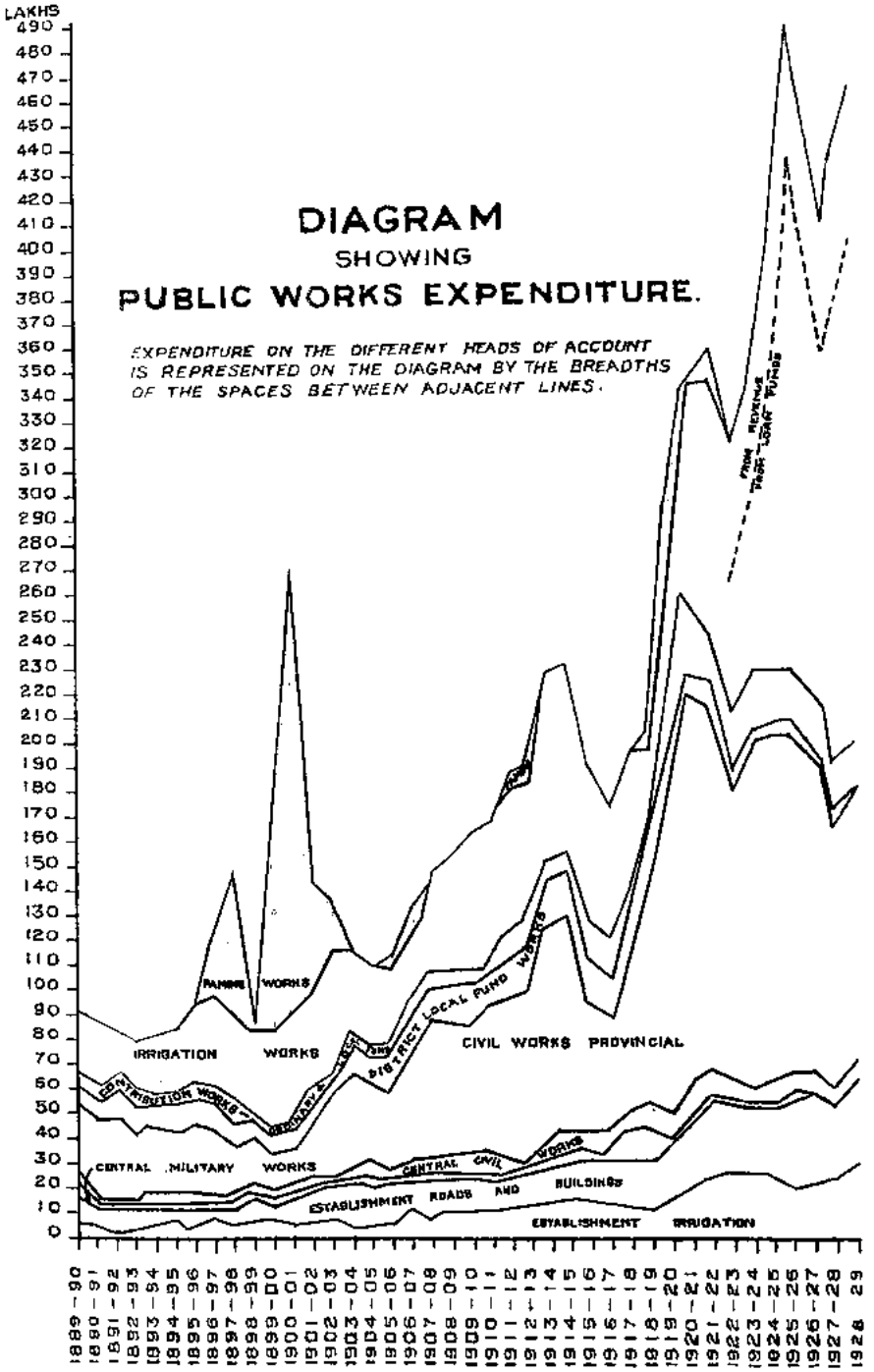
	Pages
I.—Direction	1
II.—Administrative Measures	1
III.—Territorial Changes	1-3
IV.—Detailed Review	
Important works carried out under the following heads :—	
A.—Civil Buildings.	
Central Services—Customs, Salt, Opium, General Administration, Administration of Justice, Jails and Convict Settlements, Police, Ports and Pilotage, Ecclesiastical, Political, Scientific Department, Educational, Medical, Public Health, Aviation, Currency Buildings, Mint, Civil Works, Miscellaneous, Communications, Post Offices, Telegraphs and Archæological	4-7
Military Works	7
Provincial Services—Land Revenue, Excise, Forests, Registration, General Administration, Residences for Heads of Provinces, Provincial Legislative Councils, Secretariat and Head Quarters Establishment including Local Fund Audit Establishment, Commissioners and District Officers, Administration of Justice, Jails and Convict Settlements, Police, Educational, Medical, Civil Works, Public Health, Agriculture, Stationery and Printing, Scientific Departments, Miscellaneous Departments and Industries	7-12
Central Workshops at Dapuri	12-13
B.—Architectural	13
C.—Electrical	13-14
D.—Communications	14-16
Arboriculture	16
E.—Miscellaneous.	
Public Health, Water Supply, Drainage and Boring	16-17
F.—Technical Papers	17-18
G.—Railways	18-19
APPENDICES.	
I.—Statement showing expenditure on Civil and Military Works ..	20-25
II.—Statement of roads not within Municipal boundaries maintained by the Public Works and Local Authorities	26-31
III.—Statement showing the expenditure on Provincial Buildings and Roads in the Presidency proper and in Sind from 1921-22 to 1928-29	32-35
IV.—Statement showing the expenditure on District Local Board Roads in the Presidency proper and Sind (original works and repairs) from the year 1921-22 to 1928-29	36-37
V.—Statement showing expenditure on establishment in the Roads and Buildings and the Irrigation Branches of the Public Works Department from the year 1921-22 to 1928-29 and percentage on the total outlay on works and repairs during the period in both the Branches	38-39

LIST OF ILLUSTRATIONS.

	Facing Pages
Two diagrams showing Public Works expenditure during the period from 1889-90 to 1928-29	1
Diagram showing expenditure on Irrigation Works in the Public Works Department from Loan funds, and Revenue during the period from 1922-23 to 1928-29	1
Diagram showing expenditure on Provincial Buildings and Roads in the Presidency proper and Sind during the period from 1921-22 to 1928-29	1
Diagram showing the expenditure on District Local Board roads in the Presidency proper and Sind (original works and repairs) during the period from 1921-22 to 1928-29	1
Diagram showing expenditure on Establishment in the Roads and Buildings and Irrigation Branches of the Public Works Department and Percentages to the total outlay on Works and Repairs during the period from 1921-22 to 1928-29 ..	1
Photographs—	
Post and Telegraph Office, Kalbadevi, Bombay	6
Cement concrete breakwater No. 3 on the Eastern Foreshore of Government House Grounds, Malabar Point, Bombay ..	8
New Council Hall, Bombay	8
District Court, Poona	8
Operation Theatre at Sassoon Hospital, Poona	10
Outpatients Department at the Sassoon Hospital, Poona ..	10
Laboratory buildings at the B. J. Medical School, Poona ..	10
Ellappa Balaram Ward Pavilion, Sir J. J. Hospital, Bombay ..	10
Asphalted portion of Bandra-Ghodbunder road near Khar ..	14
Vented causeway over the Kaveri river in mile No. 13 on Bulsar Chikhli road	14
Bridge over the river Tapti at Gidhad site on Bombay-Agra road	16
Poona Drainage improvement scheme	16
Nandurbar Water Supply	16
Boring at Chaloda	16
Boring at Amarpura	16
Boring at Rupal	16
Public Works Department Division Map	39

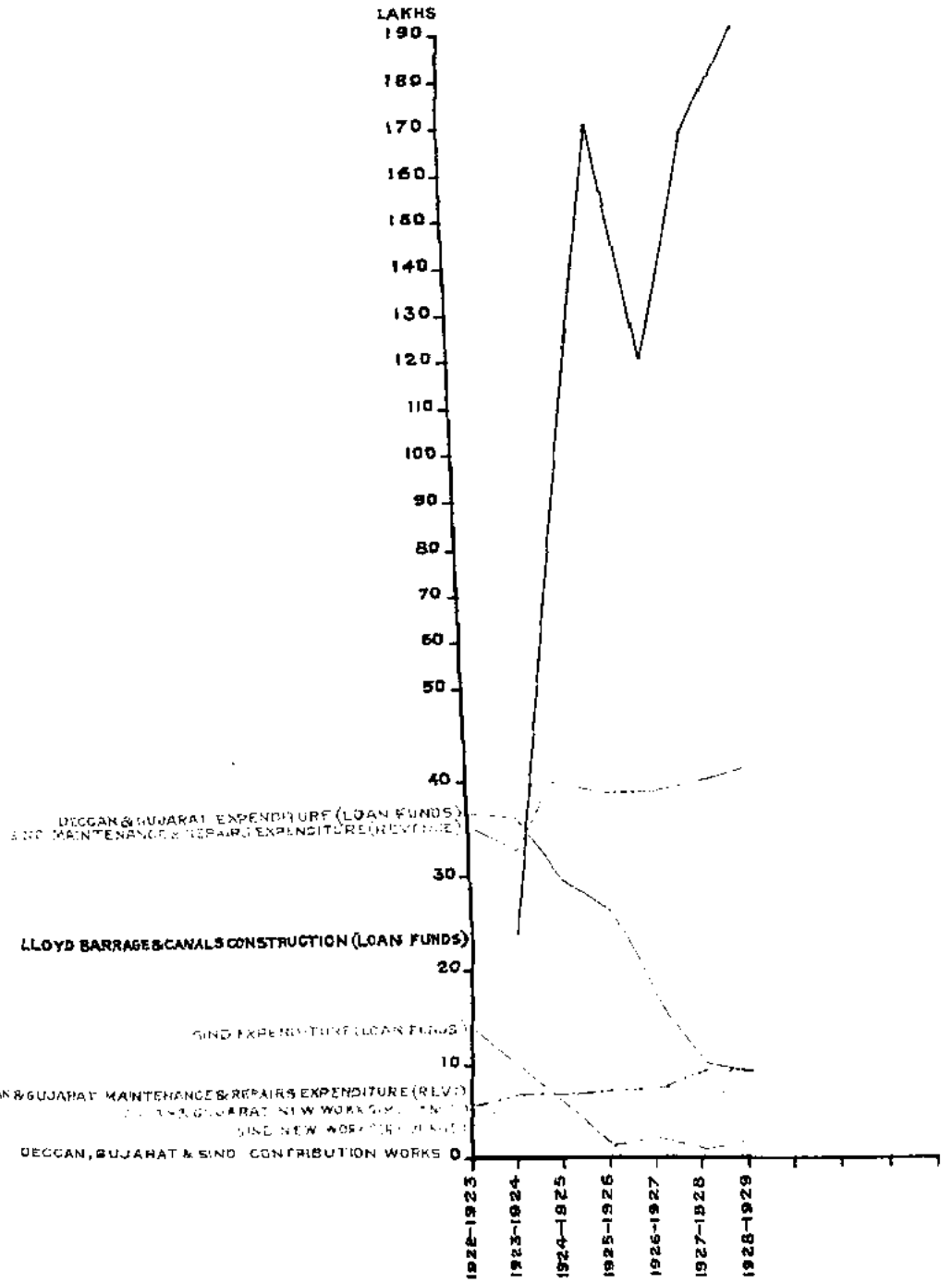
DIAGRAM
SHOWING
PUBLIC WORKS EXPENDITURE





G.P.Z.O.Poona,1930.

DIAGRAM
SHOWING
EXPENDITURE ON IRRIGATION WORKS
IN THE PUBLIC WORKS DEPARTMENT
FROM
LOAN FUNDS, REVENUE & CONTRIBUTION

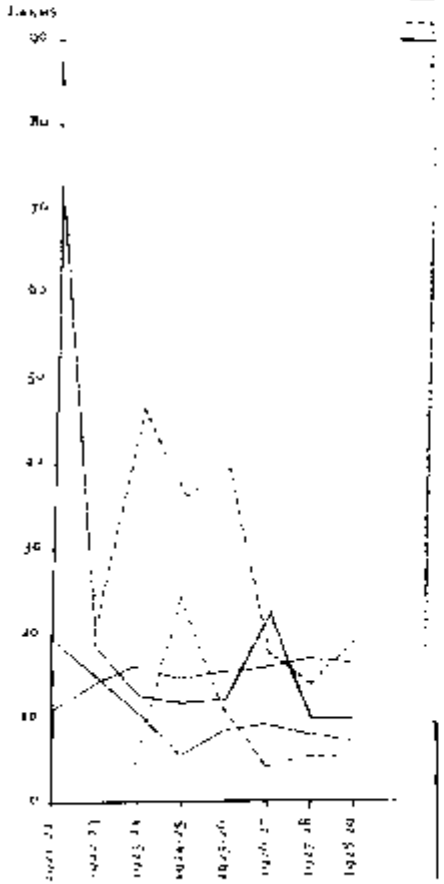


S. P. I. O. Poona, 1930.

DIAGRAM SHOWING EXPENDITURE ON PROVINCIAL BUILDINGS AND ROADS
IN THE
PRESIDENCY PROPER AND SIND.

Represents P. C. W. Expenditure on Buildings for Original Works.
" " " " " " Maintenance
" " " " Metalled Provincial Roads for Original Works
" " " " " " " Maintenance
" " " " Unmetalled " " "
" " " " Metalled " " Maintenance
" " " " Unmetalled " " "

PRESIDENCY PROPER.



SIND.

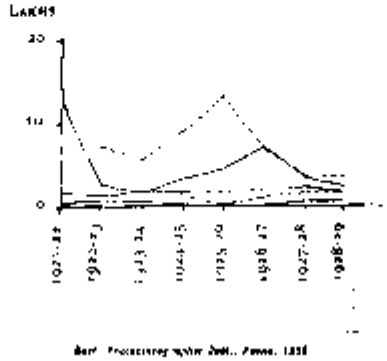
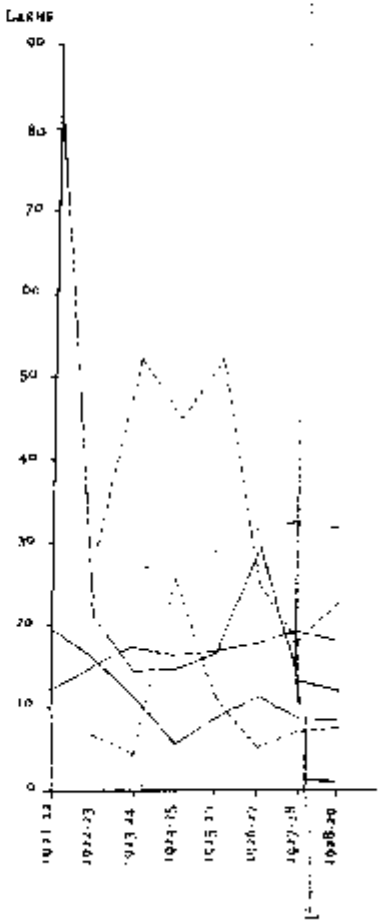
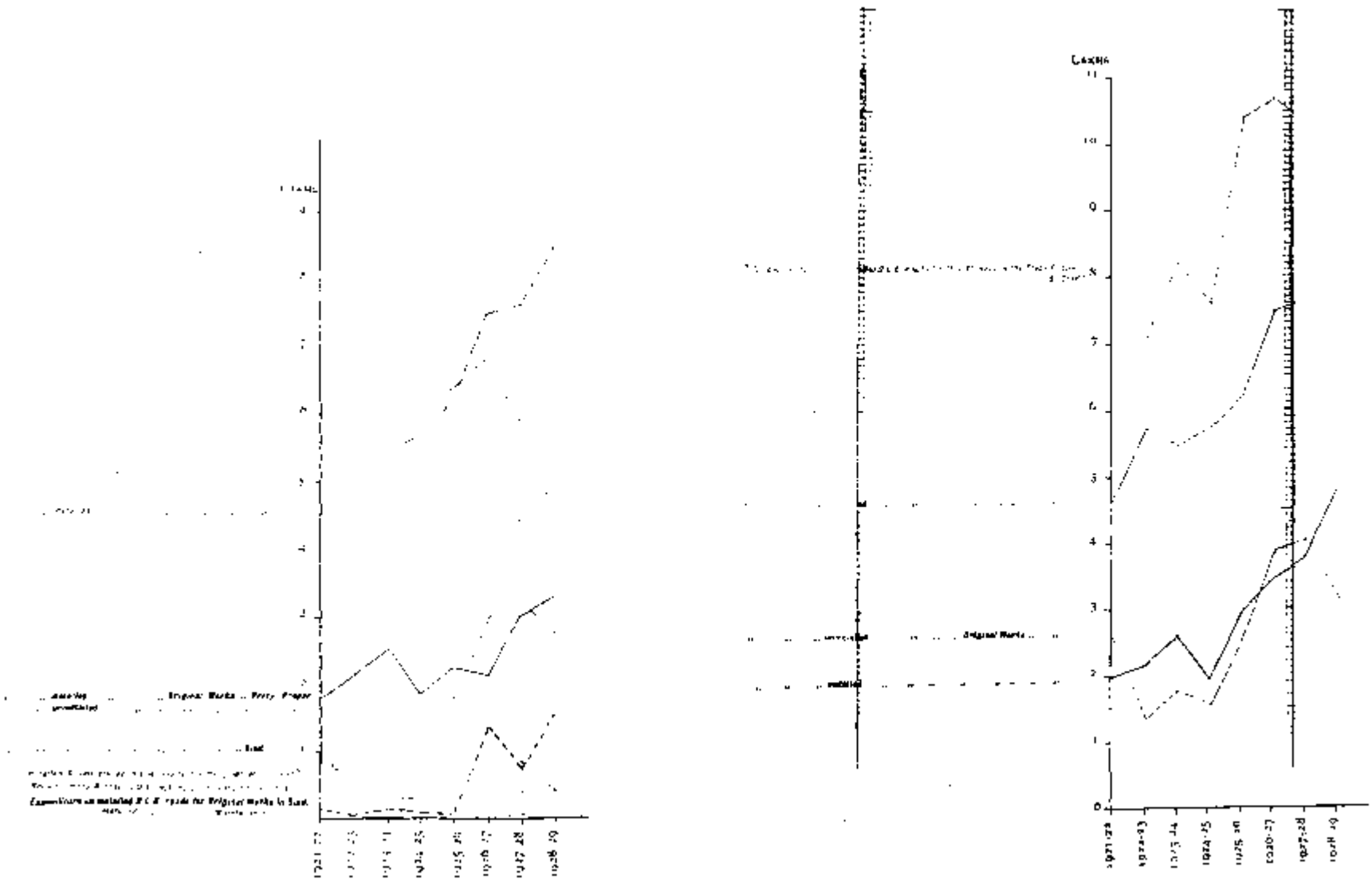


DIAGRAM SHOWING TOTAL EXPENDITURE
IN THE
PRESIDENCY PROPER AND SIND



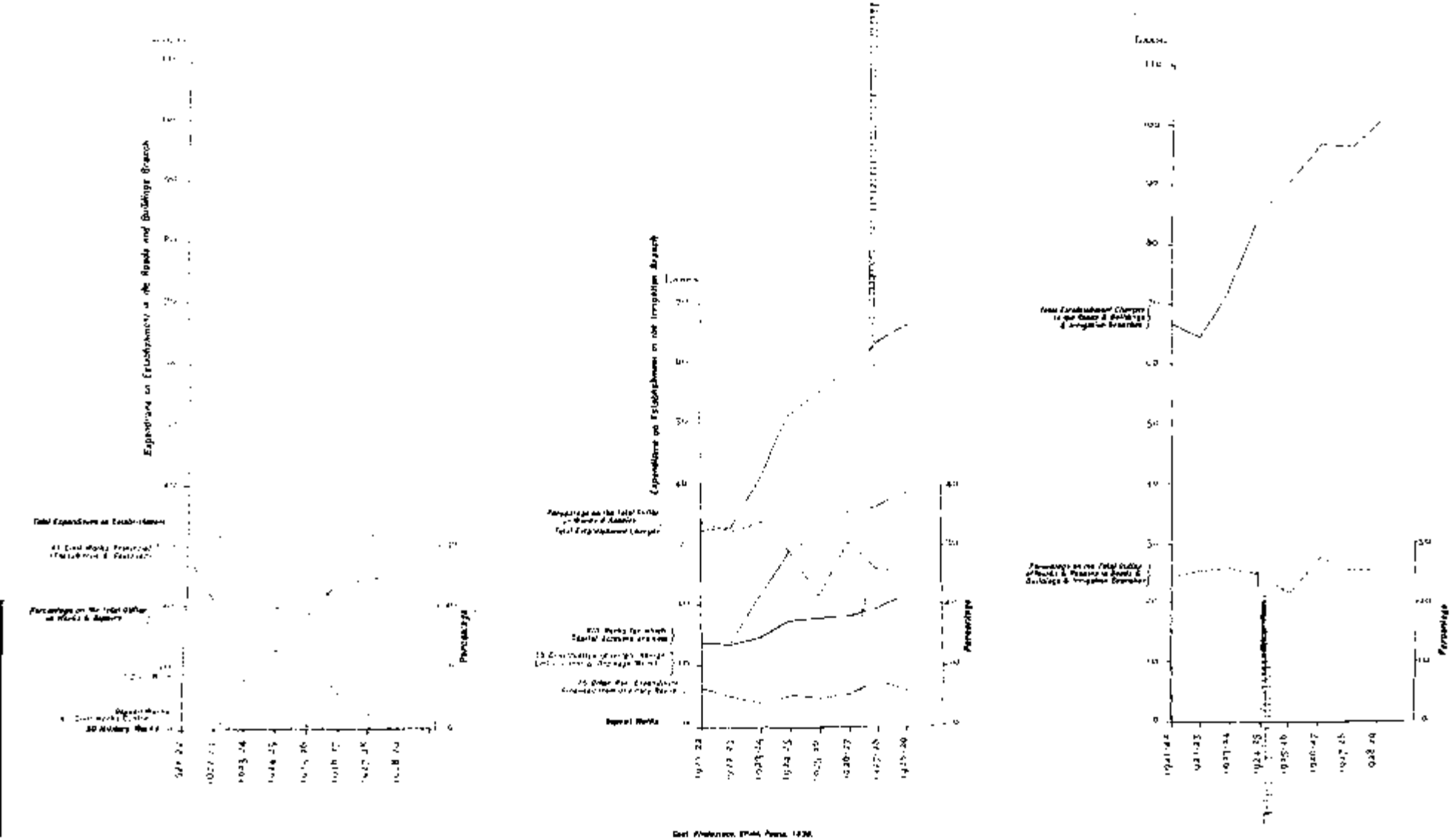
DIAGRAMS SHOWING THE EXPENDITURE ON D.L.B. ROADS IN THE PRESIDENCY PROPER AND SIND

(ORIGINAL WORKS AND REPAIRS)



Surv. Photozincographic Dept., Poona. 1929

DIAGRAM SHOWING EXPENDITURE
ON ESTABLISHMENT
IN THE
ROADS & BUILDINGS & IRRIGATION BRANCHES
OF THE
PUBLIC WORKS DEPARTMENT
AND
PERCENTAGES TO THE TOTAL OUTLAY ON WORKS AND REPAIRS


Expenditure on Establishment in the Roads and Buildings Branch
Total Expenditure on Establishment
Percentages on the Total Outlay on Works & Repairs
Percentage
Expenditure on Establishment in the Irrigation Branch
Percentage on the Total Outlay on Works & Repairs
Percentage
Total Establishment Charges in the Roads & Buildings & Irrigation Branches
Percentage on the Total Outlay on Roads & Buildings & Irrigation Branches
Percentage

PUBLIC WORKS DEPARTMENT.

BOMBAY PRESIDENCY.

ADMINISTRATION REPORT WITH A DETAILED REVIEW OF THE CIVIL AND MILITARY WORKS FOR 1928-29.

I.—DIRECTION.

During the year under report Mr. R. T. Harrison, C.S.I., I.S.E., continued as Chief Engineer for Irrigation and Secretary to Government and Mr. D. R. H. Browne, O.B.E., A.K.C., I.S.E., as Chief Engineer, Roads and Buildings and Joint Secretary to Government.

2. In consequence of the retirement of Mr. B. E. Vachha, I.S.E., Superintending Engineer, from 21st November 1928, Mr. C. M. Lane, I.S.E., was made Superintending Engineer permanent and Mr. D. R. H. Browne, was made Superintending Engineer provisionally permanent from that date. In the vacancy caused by the retirement of Mr. V. M. Griffiths, I.S.E., Chief Engineer, from the 25th November 1928, Mr. J. B. S. Thubron, C.I.E., I.S.E., was made Chief Engineer, permanent, and Mr. D. R. H. Browne, Superintending Engineer, permanent, and Chief Engineer provisionally permanent, on account of the former being on foreign service. Mr. A. H. Whyte, was made Superintending Engineer provisionally permanent vice Mr. Browne.

II.—ADMINISTRATIVE MEASURES.

ESTABLISHMENT.

3. One appointment was made to the Europe-recruited Branch of the Indian Service of Engineers. In the India-recruited Branch of the service two Students were appointed in accordance with the guarantee given to the College of Engineering, Poona, and the N.E.D. Civil Engineering College, Karachi.

4. One graduate from the N.E.D. Civil Engineering College, Karachi, was appointed as a candidate for the Bombay Service of Engineers and two promotions were ordered from the Bombay Subordinate Engineering Service to the Bombay Service of Engineers. The question of selecting Supervisors for promotion to the Bombay Service of Engineers was also under consideration during the year under report.

III.—TERRITORIAL CHANGES.

5. The continuance of the following Divisions was sanctioned by the Government of India up to the dates mentioned against each :—

The Lake Whiting Division	..	31st December 1929.
The Mutha Canals Division	..	31st March 1930.

The Pravara Canals Division ... 31st March 1930.

The Head Quarters Works Division. 30th June 1930.

The Special Irrigation Division .. 30th November 1932.

6. On the Lloyd Barrage and Canals Construction Scheme, the Khirtar Tail Division in the North Western Circle was temporarily closed and the Warah Branch Division was transferred from the Western Circle to the North-Western Circle. The continuance of the Central Designs Division was sanctioned upto 31st March 1930 and the Rohri Canal No. IV Division was opened from 12th April 1928.

7. A temporary post equal in importance of a divisional charge was created under the Chief Engineer in Sind for the purpose of compiling certain technical information and assisting the Chief Engineer in preparing the Bombay Government case for discussion at the meetings of the Indus Discharge Committee under the orders of the Government of India.

8. The continuance of the following temporary Sub-divisions was sanctioned up to the dates mentioned against each :—

LAKE WHITING DIVISION.

Bhatgar Sub-division Padegaon Sub-division Nimblak Sub-division	31st December 1929.

MUTHA CANALS DIVISION.

Mutha Canals Sub-division Minor Tank Sub-division Mutha Project Sub-division	31st March 1930.

PRAVARA CANALS DIVISION.

Pravara Canals.

Pravara Left Bank Canal Sub-division. Pravara Right Bank Canal Sub-division. Pravara Head Sub-division	31st March 1930.

Godavari Canals.

Rahata Sub-division Mahalkheda Sub-division Kopargaon Sub-division	31st March 1930.

NIRA LEFT BANK CANAL DIVISION.

Head Remodelling Sub-division Tail Survey and Remodelling Sub-division.	31st July 1929.

FULELI CANALS DIVISION.

Project Sub-division .. 31st March 1929.

SPECIAL IRRIGATION DIVISION.

Effluent Farm Development Sub-division
Baramati Development Sub-division
Kopargaon Development Sub-division
Belapur Development Sub-division
Phaltan Development Sub-division
Mutha Right Bank Canal Development Sub-division
Baramati Experimental Salt Area Sub-division
} 30th November 1932.

9. The Special Project Sub-division of the Karachi Canals Division, with its headquarters at Karachi, was re-created for a period of six months in the first instance with effect from 1st October 1928 and its continuance was subsequently sanctioned up to 31st March 1930.

10. The Uch and Kashmor Sub-divisions of the Begari Canals Division were renamed the Frontier and Desert Sub-divisions respectively, and the Frontier Rajwah, a distributary 24 miles long *ex*-Desert Canal was included in the Frontier Sub-division with effect from 13th August 1928.

The Pravara Head, the Pravara Left Bank Canal and the Pravara Right Bank Canal Sub-divisions of the Pravara Canals Division were renamed the Khandala, the Vadala and the Deolali Sub-divisions respectively, with effect from 2nd February 1929.

11. The headquarters of the Vir Sub-division of the Nira Left Bank Canal Division was re-transferred with effect from 1st April 1928, from Padegaon to Nira.

12. The Nateputa Sub-division of the Nira Right Bank Canal miles 48-65 with distributaries and Mahad Pandharpur road from mile 99 to 111, was transferred from the Malsiras Division to the Lake Whiting Division in the year under report.

13. Under the Lloyd Barrage and Canals Construction Scheme 83 Sub-divisions were created up to the end of March 1929.

14. The Headquarters of the Sub-divisions at Chikodi and Malwan in the Belgaum Division and at Dapoli in the Ratnagiri Division were changed to Kolhapur, Vengurla and Chiplun respectively, and the Sub-divisions were named Kolhapur, Vengurla and Chiplun Sub-divisions.

MISCELLANEOUS.

15. A temporary post of an Accounts Officer was sanctioned for a period of seven months for the preparation of the Bombay Public Works Department Manual.

16. The Specialist Officers were admitted during the year to the benefits of passage concessions.

17. The annual rate of recruitment to the Bombay Service of Engineers was fixed at 6, made up as under :—

(*a*) Three appointments under the guarantee given to the College of Engineering, Poona and the N. E. D. Civil Engineering College, Karachi.

(*b*) One appointment by promotion from the Bombay Subordinate Engineering Service.

(*c*) Two appointments by selection from permanent Supervisors and temporary Engineers.

IV.—DETAILED REVIEW.

A—Civil Buildings.

During the year under review the Roads and Buildings Branch of the Public Works Department of the Presidency executed works involving a total expenditure of Rs. 1,94,64,285. The more important details are given under the various heads below :—

Central Services.

Customs—	Rs.
On works	5,11,261
On repairs	41,702
Total ..	5,52,963

Some of the quarters for the Preventive Officers of the Bombay Customs Department at Matunga, Bombay, were completed and some were in progress.

Quarters for six European and six Indian Preventive officers and 24 servants at Keamari were in progress.

Salt—	Rs.
On works	64,231
On repairs	97,889
Total ..	1,62,120

New quarters for 8 karkuns and one Aval karkun at Umela in the Thana Division were completed.

Preventive officer's bungalow at Mira near Bhayandar was in progress.

Opium—	Rs.
On repairs	70
General Administration—	
On works	55,355
On repairs	5,240
Total ..	60,595

		Rs.
Administration of Justice—		
On works	..	1,347
On repairs	..	2,977
Total	..	4,324
Jails and Convict Settlements—		
On works	..	1,185
On repairs	..	1,904
Total	..	3,089
Police—		
On works	..	66,872
On repairs	..	21,987
Total	..	88,859
Ports and Pilotage—		
On works	..	2,792
On repairs	..	198
Total	..	2,990
Ecclesiastical—		
On works	..	9,245
On repairs	..	52,867
Total	..	62,112
Political—		
On works	..	14,924
On repairs	..	35,197
Total	..	50,121

An inspection bungalow and an office and quarters for Thandar at Wadia in the Rewa Kantha Agency were completed. Police Lines at Nirmali in the Mahi Kantha Agency were nearly completed. Additional Police Lines at Satlasna in the Mahi Kantha Agency were completed. New Police Lines at Sunthal in the Mahi Kantha Agency were in progress.

		Rs.
Scientific Department: Meteorological—		
On works	..	1,718
On repairs	..	3,767
Total	..	5,485

Office and quarters for meteorological staff at the Civil Aerodrome at Karachi were nearly completed.

Education other than European and Anglo-Indian Education : Primary—

		Rs.
On repairs	.. ..	130
Medical—		
On works	.. ..	13,774
On repairs	.. ..	9,303
	Total ..	23,077
Public Health—		
On works	.. ..	6,400
On repairs	.. ..	4,834
	Total ..	11,234
Aviation—		
On works	.. ..	15,680
On repairs	.. ..	2,365
	Total ..	18,045

The work of constructing Customs buildings at the Civil Aerodrome, Karachi, was in progress.

		Rs.
Currency Buildings—		
On repairs	.. ..	5,507
Mint—		
On works	.. ..	2,196
On repairs	.. ..	6,987
	Total ..	9,183
Civil Works—		
On works	.. ..	3,232
On repairs	.. ..	3,063
	Total ..	6,295
Miscellaneous Departments—		
On repairs	.. ..	84

POST AND TELEGRAPH OFFICE, KALBADEVI, BOMBAY.

Date of photograph	15th December 1928.
Date of commencement of the work ...	8th February 1927.
Estimated cost	Rs. 1,74,418 (includes Rs. 14,634 for electrical installation).
Total expenditure to end of the year under report...	Rs. 1,71,958 (includes Rs. 13,789 for electrical installation).
Work completed or in progress ...	Completed.

G. P. Z. P. 1930.

		Rs.
Communications—		
On repairs	..	1,489
Miscellaneous—		
On repairs	..	1,080
* *Post Offices*—		
On works	..	2,81,578
On repairs	..	59,625
Total	..	3,41,203

New Post and Telegraph office at Kalbadevi, Bombay, was completed and handed over to the Postal Department.

A new Post Office at Ahmedabad was in progress.

		Rs.
* *Telegraphs*—		
On works	..	76,157
On repairs	..	28,958
Total	..	1,05,115
* *Archaeological*—		
On works	..	260
On repairs	..	67,059
Total	..	67,319
Military Works—		
On works	..	91
On repairs	..	73,763
Total	..	73,854

Provincial Services.

Land Revenue—		
On works	..	4,622
On repairs	..	6,169
Total	..	10,791

* From the year 1921-22, the expenditure on Post and Telegraph buildings has been transferred to the Accountant General, Posts and Telegraphs, and that on Archæological works to the Accountant General, Central Revenues.

Excise—		Rs.
On works		21,931
On repairs		28,916
Total ..		53,847
Forests—		
On works		7,046*
On repairs		8,262
Total ..		15,308
Registration—		
On works		357
On repairs		535
Total ..		892
General Administration—		
(1) Residences for Heads of Provinces—		
On works		58,646
On repairs		2,63,857
Total ..		3,22,503

The work of constructing breakwaters and stone pitched berms along the Eastern Foreshore of the Government House grounds, Malabar Point, Bombay, was in progress.

(2) Provincial Legislative Councils—

	Rs.
On works	7,27,170
On repairs	13,636
Total ..	7,40,806

The new Council Hall and the conversion of the Sailors' Home, Bombay, into offices for the Legislative Council were completed.

(3) Secretariat and Head Quarters Establishment including Local Fund Audit Establishment—

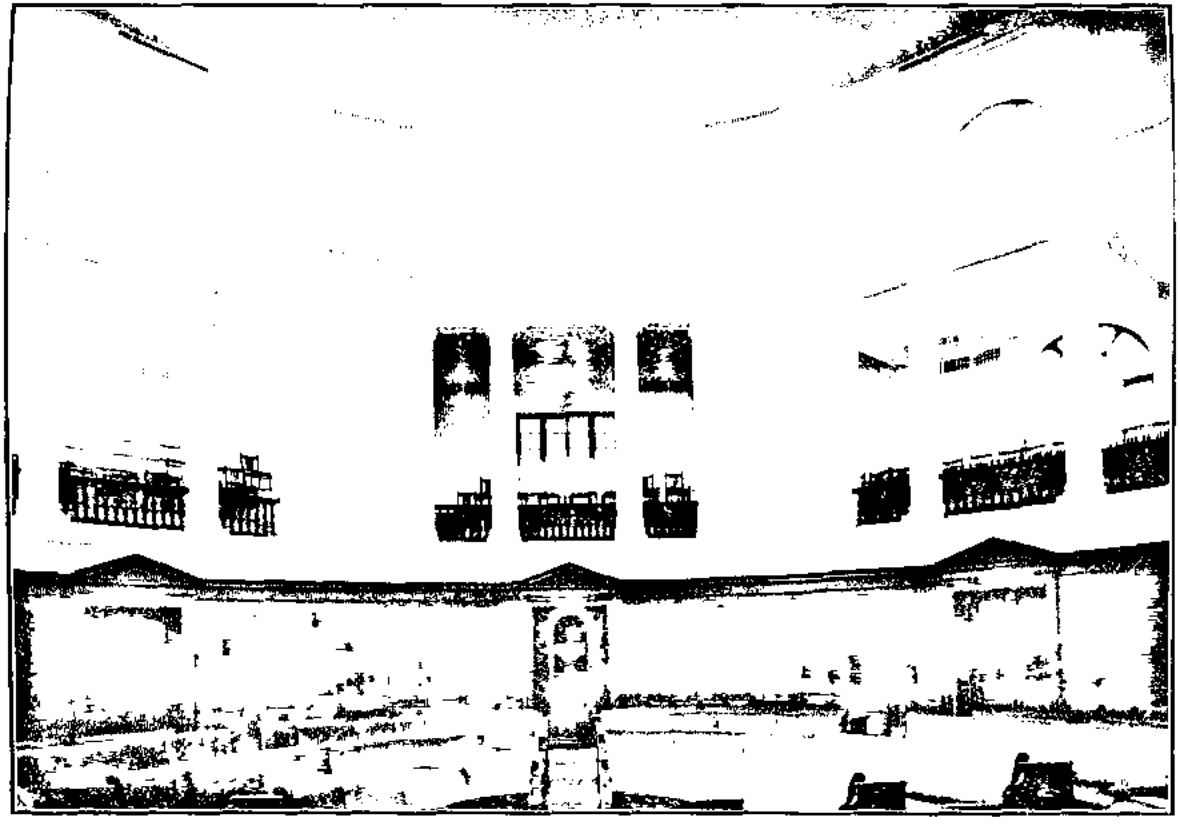
	Rs.
On works	16,017
On repairs	18,166
Total ..	34,183

* Includes Rs. 29 outlay on works Deposit Contribution.

CEMENT CONCRETE BREAKWATER NO. 3, ON THE EASTERN FORESHORE OF GOVERNMENT HOUSE GROUNDS, MALABAR POINT, BOMBAY.

Date of photo	17th May 1928.
Estimated cost	Rs. 26,334.
Actual expenditure to end of March 1929 ...	Rs. 22,458
Date of commencement	May 1927.
Date of completion	March 1929.

G. P. Z. P. 1930.

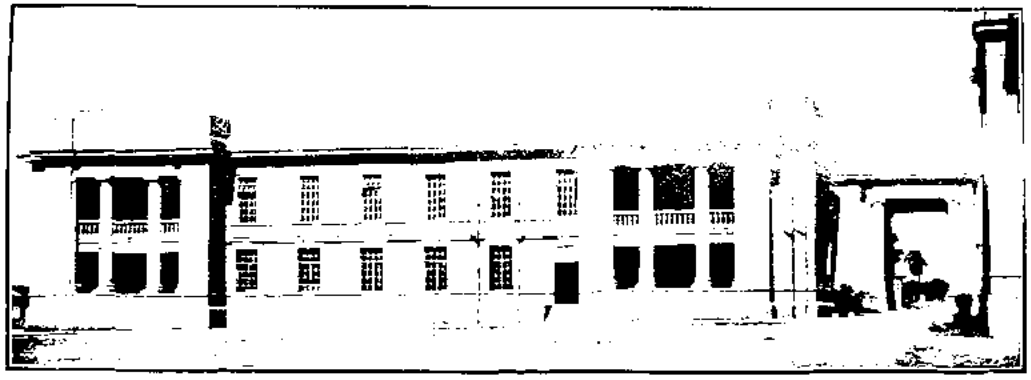


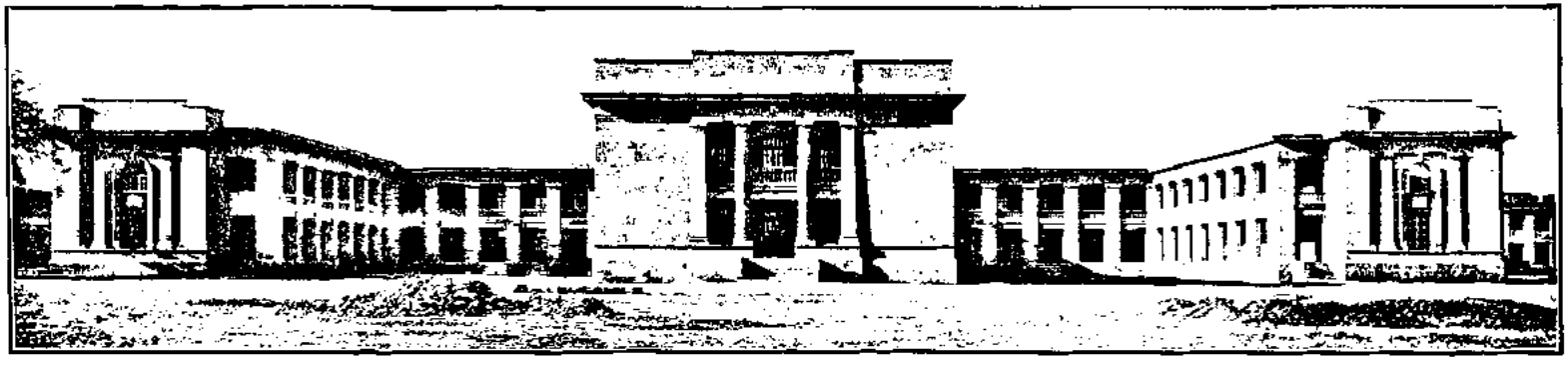
NEW COUNCIL HALL, BOMBAY

Date of photograph ... February 1929.
Estimated cost .. ..

Total expenditure to end of the year under report
Work completed or in progress ..

Date of commencement of the work ... 4th January 1925.
Rs. 2,65,310 includes Rs. 40,000 cost of cooling apparatus and Rs. 13,920 for electrical installation.
Rs. 2,56,043 includes Rs. 40,000 cost of cooling apparatus and Rs. 14,962 for electrical installation.
Completed certain additional sanitary conveniences subsequently sanctioned are to be provided.





DISTRICT COURT, POONA; MAIN BUILDING. ABOVE: Side view from East. BELOW: —Rear view from South.

	Date of photo	18th April 1929.
	Estimated cost	Rs. 9,95,273
	Total expenditure to end of March 1929	Rs. 9,68,704
	Date of commencement	20th December 1923: Plinth. 4th March 1935 Above Plinth
	Date of completion	Work practically completed.

(4) Commissioners and District Officers—

	Rs.
On works	2,15,587
On repairs	2,28,193*
Total ..	4,43,780

A new Mamlatdar's Kacheri at Amalner in the East Khandesh Division was in progress.

Administration of Justice—

	Rs.
On works	6,32,064†
On repairs	1,14,378
Total ..	7,46,442

The District and Sessions Court, Small Causes Court and First and Second Class Subordinate Courts, Poona, were completed and handed over to the Home Department for occupation.

Several works in connection with the Judicial Courts, Karachi, were in progress :—

Jails and Convict Settlements—

	Rs.
On works	5,83,702
On repairs	58,268
Total ..	6,41,970

The Surgical Ward, Disinfecting House, Hospital Cells, Central Tower and Library and Quarantine Cells in connection with the Nasik Road Central Prison were completed.

Quarters for the Second Junior Jailor at the Central Prison (Hindalgi), Belgaum were constructed. The extension of the District Prison at Karachi was completed.

Police—

	Rs.
On works	1,88,724‡
On repairs	3,40,030‡.
Total ..	5,28,754

The Police Accommodation Scheme, Part II, at Naigaum, Bombay and the Railway Police Lines at Gadag were completed.

* Includes Rs. 467 outlay on Repairs from contribution.
† Includes Rs. 8 outlay on works from contribution.
‡ Includes Rs. 359 outlay on works and Rs. 899 outlay on repairs from contribution.

Educational, University—

	Rs.
On works	2,21,239*
On repairs	77,661*
Total ..	2,98,900

The Ismail College at Andheri was completed.

Extension of the Drawing Hall, improvements to the Physics Laboratory and additions and alterations to the Geological Buildings in connection with the College of Engineering, Poona, were completed.

Secondary—

	Rs.
On works	8,742
On repairs	30,847†
Total ..	39,589

Primary—

On works	6,362‡
On repairs	4,317
Total ..	10,679

Special—

On works	45,950
On repairs	17,441
Total ..	63,391

Septic tanks and improved latrines and drains at the David Sassoon Industrial and Reformatory Institute at Matunga, Bombay, were completed :—

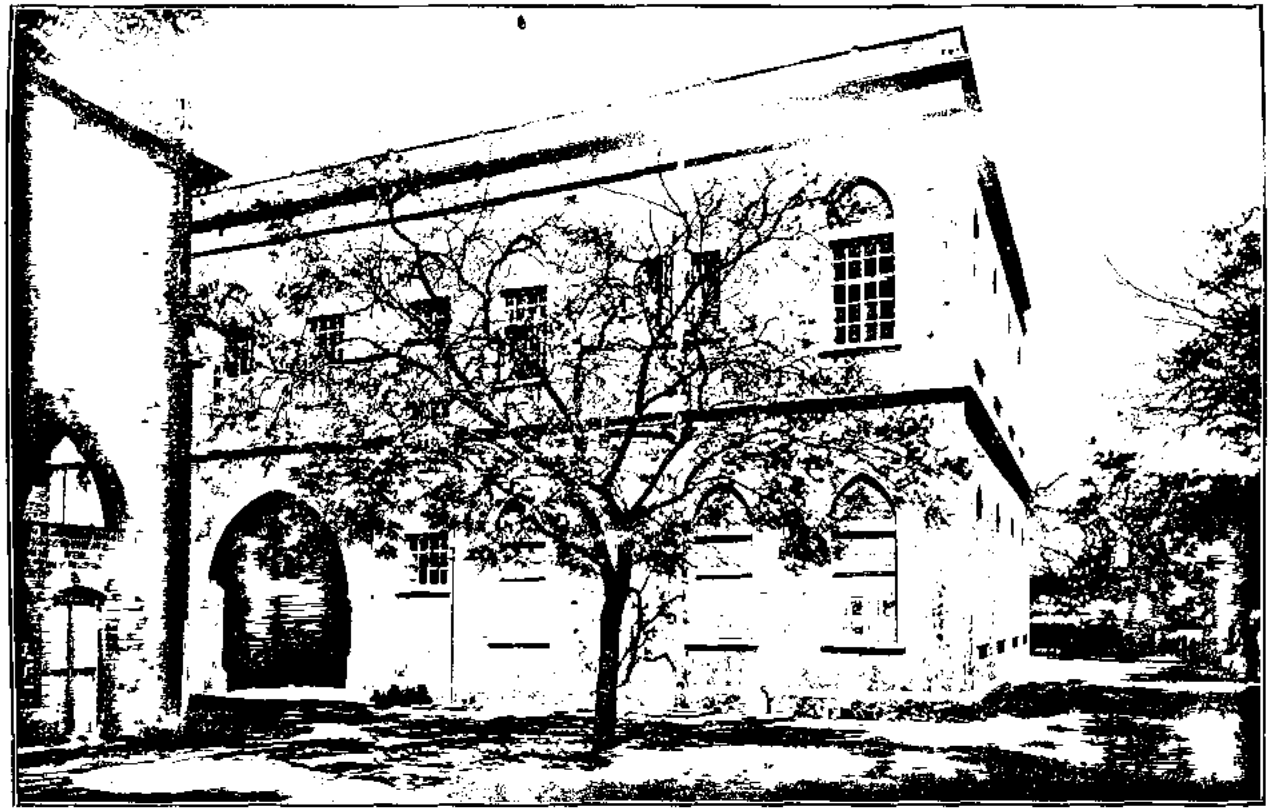
Miscellaneous—

	Rs.
On works	9,570
On repairs	32,604
Total ..	42,174

* Includes Rs. 1,53,228 outlay on works and Rs. 5,515 outlay on repairs from contribution.

† Includes Rs. 2,202 outlay on repairs from contribution.

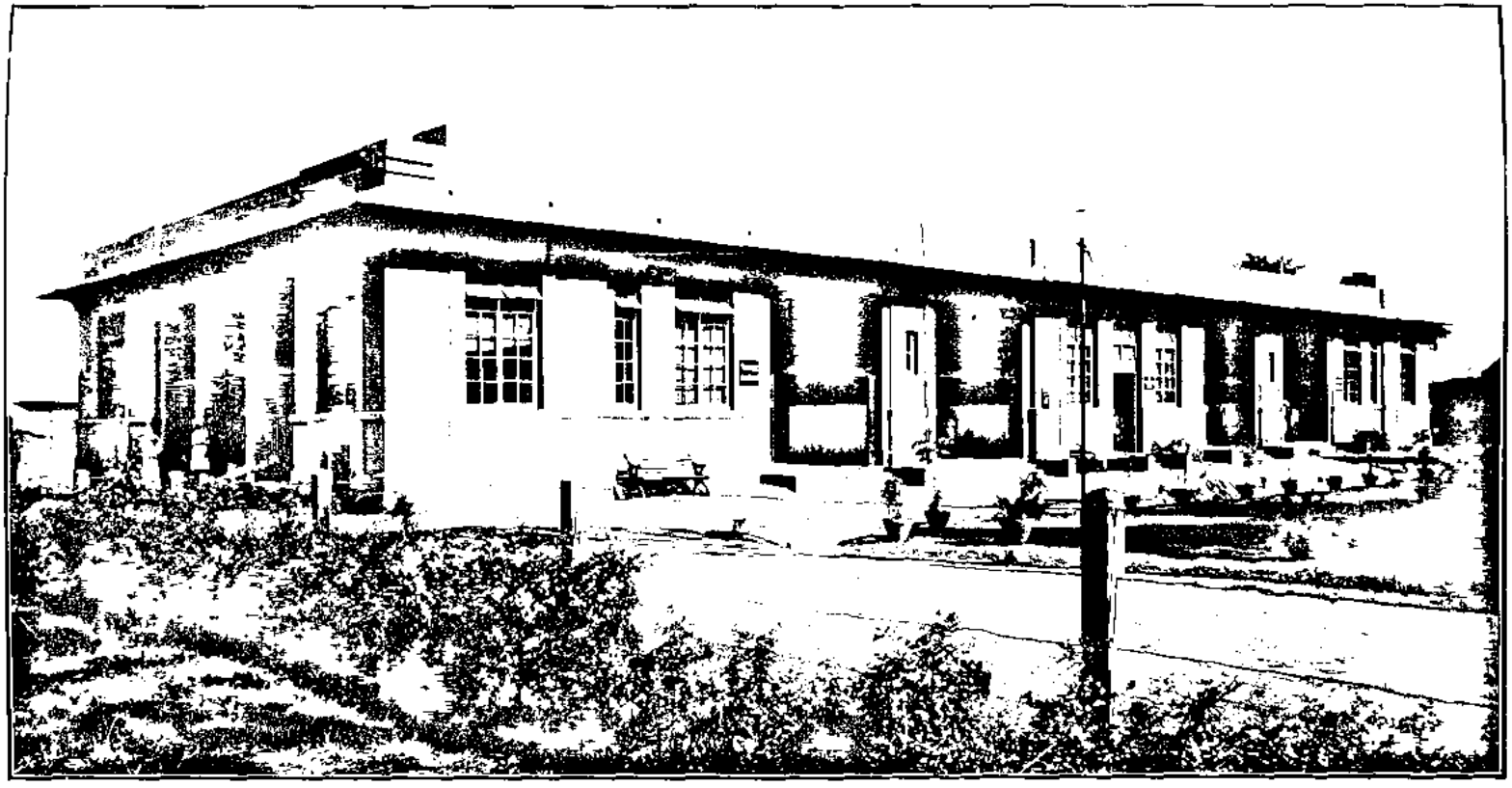
‡ Whole outlay was incurred from contribution.



G P Z P 928

OPERATION THEATRE AT SASSOON HOSPITAL, POONA.

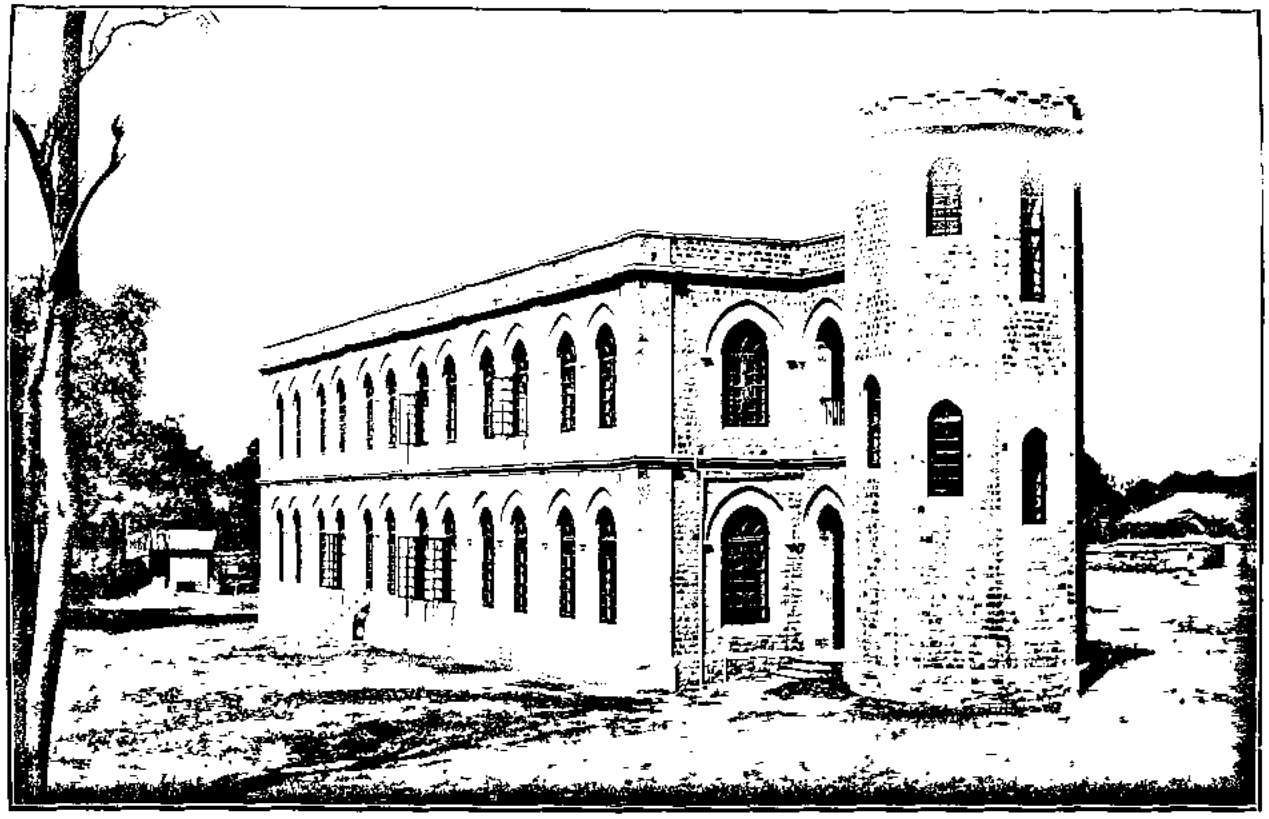
Date of photo	February 1929.
Date of commencement of the work	November 1925.
Estimated cost	Rs. 1,12,600
Total expenditure to end of the year under Report ...	Rs. 1,05,184
Work completed or in progress	Completed in November 1928.



G. P. Z. P. 1931

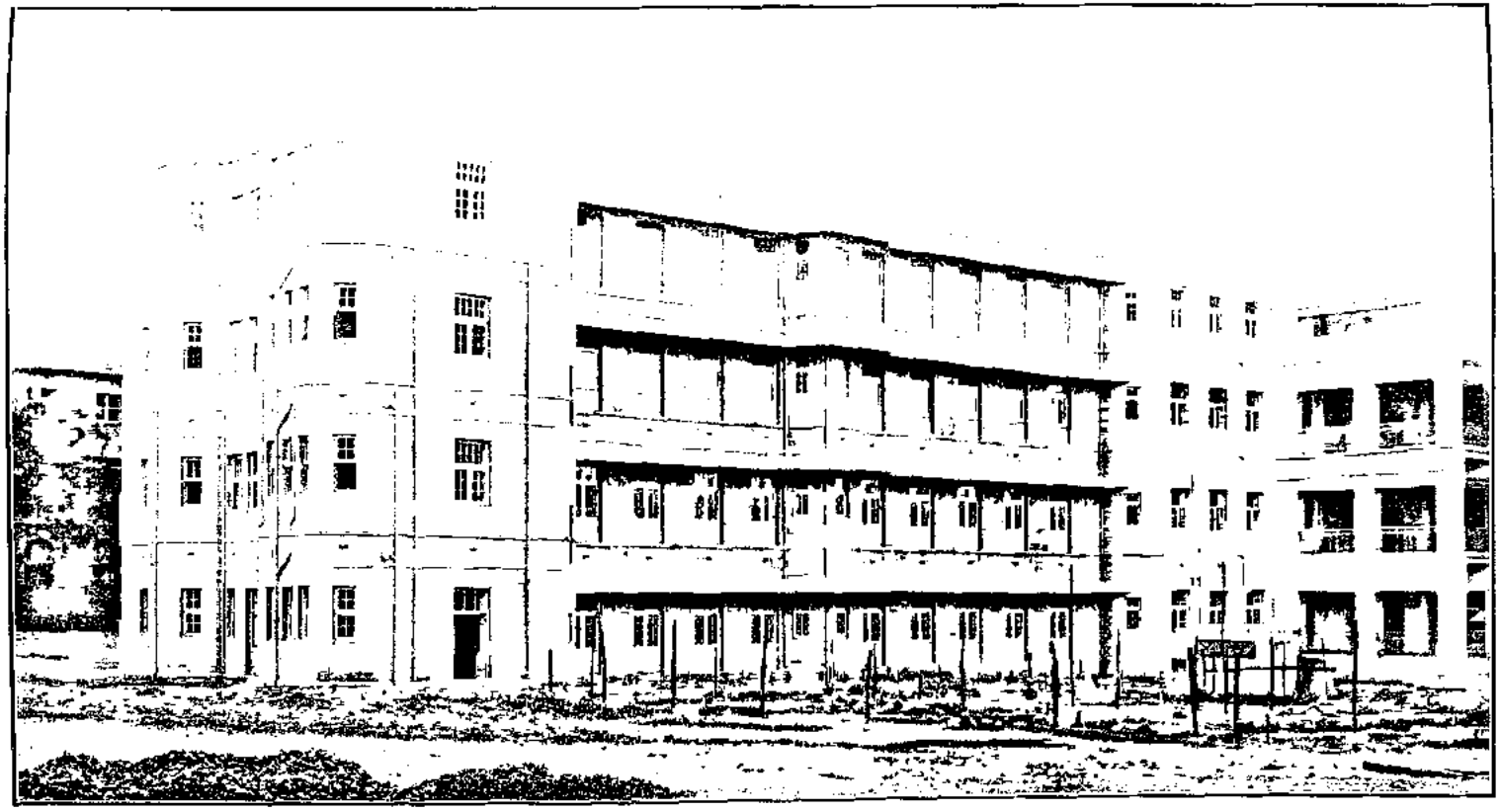
OUT-PATIENTS DEPARTMENT AT THE SASSOON HOSPITAL, POONA.

Date of photo	February 1929
Estimated cost	Rs. 1,73,131.
Approximate expenditure to end of March 1929. ...	Rs. 1,68,193.
Date of commencement	14th October 1925.
Date of completion	31st March 1929.



G. P. Z. P. 1930 LABORATORY BUILDINGS AT THE B. J. MEDICAL SCHOOL, POONA

Date of photo	February 1929.
Date of commencement of the work	November 1925
Estimated cost	Rs. 2,35,770
Total expenditure to end of the year under Report ...	Rs. 1,30,251
Work completed or in progress	Project completed except for Gas Plant



G.P.Z.P.—8.

ELLAPPA BALARAM WARD PAVILION, SIR J. J. HOSPITAL, BOMBAY

Date of photograph	2nd November 1928
Date of commencement of the work ...	9th May 1927
Estimated cost...	Rs. 3,26,304 includes Rs. 40,019 for electrical installation.
Total expenditure to end of the year under report ...	Rs. 2,84,382 includes Rs. 25,053 for electrical installation.
Work completed or in progress	Completed.

Medical—		Rs.
On works	..	13,32,148*
On repairs	..	2,34,058*
Total	..	15,66,206

Works completed—

The Byramjee Jeejeebhoy Hospital for children in the compound of Sir J. J. Hospital, Bombay.

Ellappa Balaram Ward Pavilion, Sir J. J. Hospital, Bombay.

Additions and alterations to the North wing G. T. Hospital, Bombay.

Improving the floor of Sir C. J. Hospital, Surat.

Office and store room for the Steward at the Civil Hospital, Ahmedabad.

Additions and alterations to the Lady Dufferin Hospital, Shikarpur.

Works in progress—

No. 1 Ward Pavilion (Sassoon David Hospital) at Sir J. J. Hospital, Bombay.

Sir Currimbhoy Ebrahim Memorial Dental College and Hospital at Sir J. J. Hospital, Bombay.

New building for Pathology and Bacteriology, Grant Medical College, Bombay.

Construction of additional quarters for 99 nurses and a sister's dining and sitting room in the compound of Sir J. J. Hospital, Bombay.

The Laboratory at the B. J. Medical School, Poona.

Improvements to Infectious Diseases Hospital, Poona.

New block for better class male patients, two separate wards for Parsi patients and three blocks of servants' quarters at the Central Mental Hospital, Yeravda.

Civil Works—		Rs.
On works	..	95,930†
On repairs	..	2,64,390†
Total	..	3,60,320

Public Health—		
On works	..	52,708‡
On repairs	..	32,422‡
Total	..	85,130

* Includes Rs. 6,68,810 outlay on works and Rs. 564 outlay on repairs from contribution.

† Includes Rs. 111 outlay on works and Rs. 1,333 outlay on Repairs from contribution.

‡ Includes Rs. 1,287 outlay on works and Rs. 1,432 outlay on Repairs from contribution.

Agriculture—		Rs.
On works		22,016
On repairs		34,197*
Total ..		56,213
Stationery and Printing—		
On works		7,125
On repairs		10,797
Total ..		17,922
Scientific Departments—		
Museums—		
On works		117†
On repairs		1,472‡
Total ..		1,589
Miscellaneous Departments—		
On works		50,696§
On repairs		46,234‖
Total ..		96,930

The work of constructing a chhatri over the Samadhi of Shri Shivaji Maharaj at Raigad was completed.

The work of constructing roads, bridges, storm-water drains, planting of trees, etc., in connection with the public buildings on the Artillery Maidan, Karachi, was completed.

Industries—	Rs.
On works	3,143

CENTRAL WORKSHOPS, DAPURI.

The financial position of the Workshops was noticeably improved this year, the loss being Rs. 39,476 against a loss of Rs. 58,502 in the previous year. The total turn-over was Rs. 20,964 more than in the previous year.

* Includes Rs. 139 from contribution.

† Whole outlay was incurred from contribution.

‡ Includes Rs. 898 outlay on repairs from contribution.

§ Includes Rs. 1,242 outlay on works from contribution.

‖ Includes Rs. 2,306 outlay on repairs from contribution.

Twelve ornamental fountains for cattle, 51 sluice gates of special design, iron doors, windows, railing, warning and speed signs were made during the year. Over 50 tons of special pipe castings from 3" to 18" diameter and over 70 tons of manhole covers and sluice valve boxes were made. A number of boring tools and spare parts for boring machines were ordered by the Agricultural Department during the year. About 53 steam road rollers were inspected at various places and the necessary advice with regard to repairs to them was given and repairs to several steam road rollers were carried out. A preliminary inspection of 16 steam road rollers belonging to the Bombay Improvement Trust was also carried out for purposes of valuation with a view to purchase them.

During the year 29 apprentices were under training, 5 completed their apprenticeship and 11 new apprentices were engaged. Some of the boys have been specially trained for steam road roller repair work. One of those was sent to inspect and report on the condition of a roller; his effort was satisfactory and most encouraging and a firm estimate of the repair was given on his report.

The works were honoured by a visit from His Excellency the Governor on the 10th October 1928.

The works were also visited by the Honourable Dewan Bahadur Harilal D. Desai, Minister of Local Self-Government on the 6th November 1928.

B—Architectural.

During the year under review the activity in design noted in the previous year's Administration Report was maintained.

Designs and sketch plans were made for several buildings in connection with the Preventive Officers' Club House, Matunga, Central Offices at Ahmedabad, District and Subordinate Courts, Dharwar and Agricultural College, Poona.

In regard to public and institutional buildings designs were prepared for a number of works in connection with the J. J. Hospital Reconstruction scheme, Bombay, Post Office at Matunga, Bombay, New Post Office building at Ahmedabad, Post and Telegraph Office, Belgaum, certain works in connection with the Cama and Albless Hospital, Bombay, extension of the Civil Hospital and the Lady Dufferin Hospital, Karachi, Civil Hospital, Nawabshah, and Central Hospital, Shikarpur.

Type designs were prepared for quarters for Provincial Service and Junior Imperial Service Officers in Sind.

C—Electrical.

(1) *Electric Licenses*—

Electricity has continued to attract the attention of the public in an interesting degree. This great public amenity has come to be looked upon as a necessity and not as a luxury and its provision in the Bombay Presidency is already on a far larger scale than in the case of any other

Province in India. Five new licenses were granted in the year under report for the supply of electricity to Jalgaon, Dhulia, Kalyan, Lonavla-Khandala and Nadiad. Several more applications were under the consideration of Government. The number of licenses including permission under section 28 of the Indian Electricity Act in operation at the beginning of the year under report was 27 while at the end of the year the number operating or under consideration was 41.

(2) *Electric Works*—

Under this head the expenditure incurred was as follows :—

	Rs.
On works	3,91,390
On repairs	2,47,884
Total ..	6,39,274

The following important works were either in progress or completed during the year :—

Electric installations at the Judicial and Revenue Offices at Hyderabad, Judicial Court Buildings at Karachi, Nasik Road Central Prison, new building for Pathology and Bacteriology, Grant Medical College, Bombay, Rao Bahadur Ellappa Balaram Pavilion, Sir J. J. Hospital, Bombay, Central Telegraph Office, G. T. Hospital, Byramji Jeejeebhoy Hospital for children, Sir J. J. Hospital, Bombay, Preventive Officers' quarters at Matunga and the New Council Hall and offices, Bombay.

D—Communications.

	Rs.
On works	16,72,845*
On repairs	35,67,930*
Total ..	52,40,775

The principal works completed or nearly so during the year were :—

Approach road to Kasheli Bridge on the Bombay-Agra road. Remetalling and providing asphalt surfacing to the Bombay-Agra road, miles Nos. 9/2 and 9/6.	Thana Division.
Vented causeway over the Kaveri river on the Bulsar-Chikhli road.	Surat and Broach Division.
Reconstructing the abutments of the bridge and providing footpaths and training the sides of the river Shedi at Dakor Protecting the eroded portion of the Kaira-Mehmedabad road, mile No. 1 at Kaira.	Kaira and Panch Mahals Division.

* Includes Rs. 1,670 outlay on works and Rs. 7,820 outlay on repairs from contribution.

G. P. Z. P. 1930

ASPHALTED PORTION OF BANDRA GHODBUNDER ROAD NEAR KHAR.

Date of photograph	... 16th April 1929.
Date of commencement of the work	... June 1927.
Estimated cost	... The cost of planting (including cost of plant excavating pit, manure
Total expenditure to end of the year under report ...	... and maintenance and watering for 2 seasons) trees is Rs. 8 per tree.
Work completed or in progress	... In progress.

VENTED CAUSEWAY OVER THE KAVERI RIVER IN MILE No. 13 ON BULSAR CHIKHLI ROAD.

Date of photograph	28th March 1929.
Date of commencement of the work ...	... 29th December 1927.
Estimated cost	.. Rs. 36,728.
Total expenditure to end of the year under report	... Rs. 36,717.
Work completed or in progress	.. Completed.

G. P. Z. P. 1930.

Treating the portions of the Poona-Bangalore road near the Civil Hospital, Belgaum, with Colas and Trinidad paint coats.	Belgaum Division.
Causeway over the Agadi Nalla on the Havnur-Ekambi road.	Dharwar Division.
Providing a seal coat of Spramex on the cemetery Malir road, Karachi.	Karachi Buildings Division.

The principal works still in progress during the year were :—

Low level masonry bridge over the Kamwari river on the Bhiwandi-Wada road. Bridge across the Murdha Creek on Bhayander road.	Thana Division.
Protecting the first mile of the Kaira-Mehmedabad road by constructing groynes in the Watrak river at Kaira. Metalling and improving the road from Ahmedabad to Barwala, section I.	Kaira and Panch Mahals Division.
Improvements to Bombay-Poona, Poona-Ahmednagar, Indapur-Sarati *via* Bawda-Hadapsar Nira Bridge, Poona-Khadakwasla and Junnar-Narayangaon roads. Improvements to and diversion of a portion of Kennedy Road.	Poona Division.
Re-surfacing mile No. 18 and portions of miles Nos. 26 and 27 of the Surul-Mahableshwar road.	Head Quarters Works Division.
Improvements to Poona-Ahmednagar road. Re-surfacing and asphalting Ahmednagar Station Road. Causeway over the river Bhima at Dhond.	Ahmednagar Division.
Improvements to Khandesh Nizam's Frontier, Nasik to Nasik Railway Station and Nasik-Deolali roads.	Nasik Division.
Extension of Dhulia-Bhusawal road to Nimar and Berar Frontiers. Improvements to Chalisgaon-Edlabad road (Part II). Road from Chalisgaon to Malegaon. Extension of Chalisgaon-Outram Ghat road to His Exalted Highness the Nizam's territory. Causeway across the river Girna near Jalgaon on the Dhulia-Bhusawal road.	East Khandesh Division.

Warsa-Borzar road, section I.	West Khandesh Division.
Dhadgaon-Shahada road, section II.	
Improvements to certain miles of the Bombay-Agra road.	
Improvements to certain miles of the Dhulia-Bhusawal road.	
Improvements to certain miles of the Dhulia-Chinchpada road.	
Bridge over the river Tapti at Gidhad site on the Bombay-Agra road.	
Road from Taloda to Shahada, section I from Taloda to Prakash and section II from Prakash to Shahada.	
Bridges over the Bav river, the Saptalingi river and the Jagbudi river on the Hatkhamba-Poladpur road.	Ratnagiri Division.
Bridge over the Anjanari river on the Pali-Phonda road.	
Bridge over the Savitri river on the Dharamtar-Mahableshwar road.	
Improvements to the Sadashivgad-Kadra, Kumta-Hubli, Sirsi-Kodkini and Khanapur-Yellapur roads.	Kanara Division.
Diversion road near Dhareshwar on the Mirjan-Madras Frontier road.	
Improvements to the Sukkur-Shikarpur road.	Shikarpur Canals Division.
Improvements to the Badeh-Nasirabad road.	Western Nara Division.
Improvements to the Mirpurkhas-Mirwah Gorchani road.	Hyderabad Canals Division.

ARBORICULTURE.

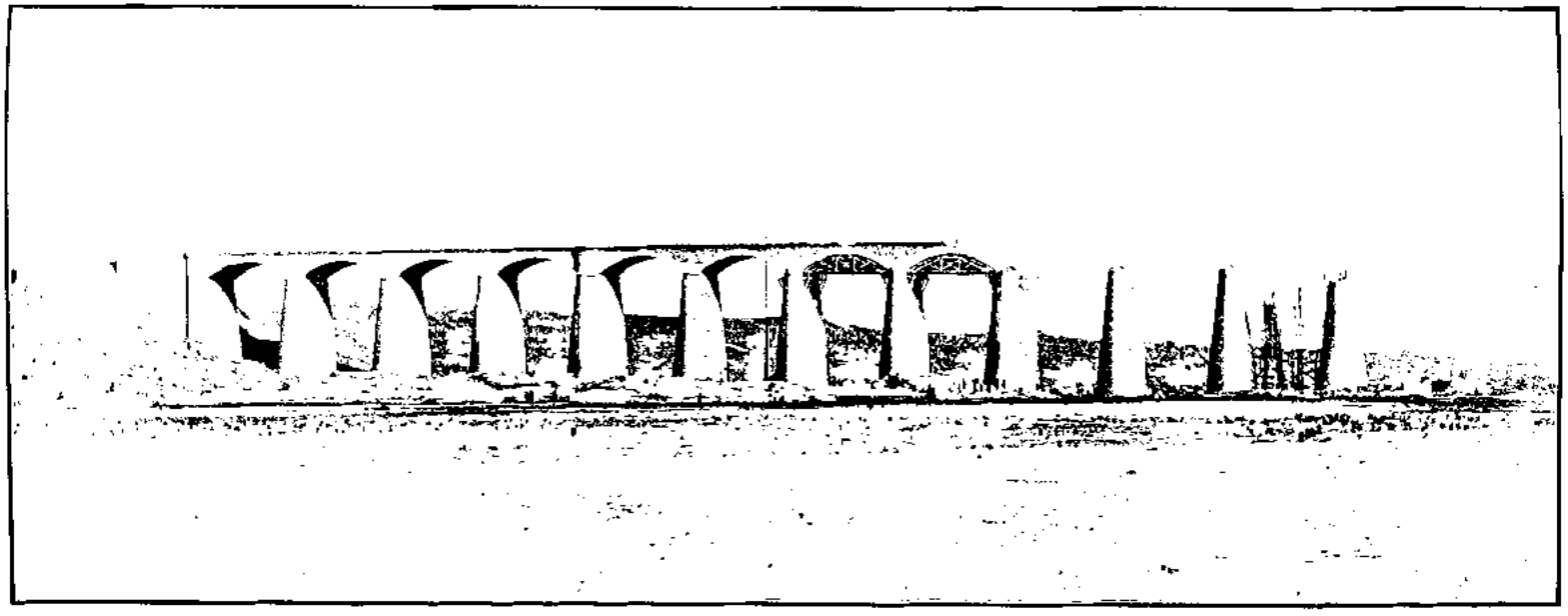
Nurseries were maintained at various places and the planting, watering and protection of road-side trees continued to receive careful attention.

About 27,302 trees were planted during the year along Provincial and Local Fund roads in charge of this Department.

E.—Miscellaneous.

	Rs.
On works	.. 8,36,496*
On repairs	.. 65,839*
Total	.. 9,02,335

*Includes Rs. 8,30,175 outlay on works and Rs. 56,143 outlay on repairs from Deposit, Municipal Funds, etc.

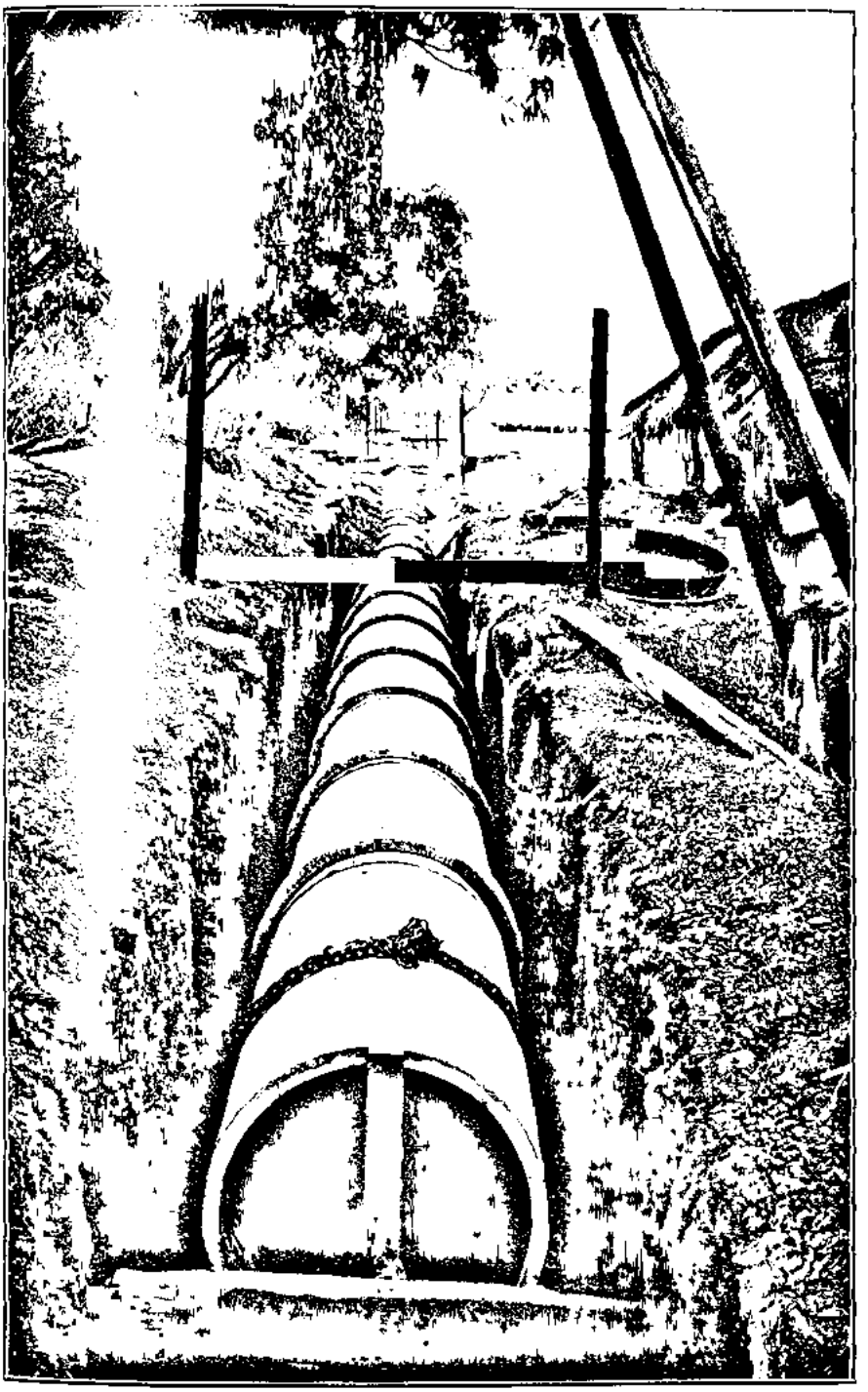


G.P.Z.P. 936

BRIDGE OVER THE RIVER TAPTI AT GIDHAD SITE ON BOMBAY AGRA ROAD.
MAIN BRIDGE. VIEW FROM UPSTREAM SIDE.

Date of photo	27th April 1929.
Date of commencement of work	January 1926.
Estimated cost of work	Rs. 15,59,449.
Total expenditure to end of March 1929	Rs. 8,28,762.

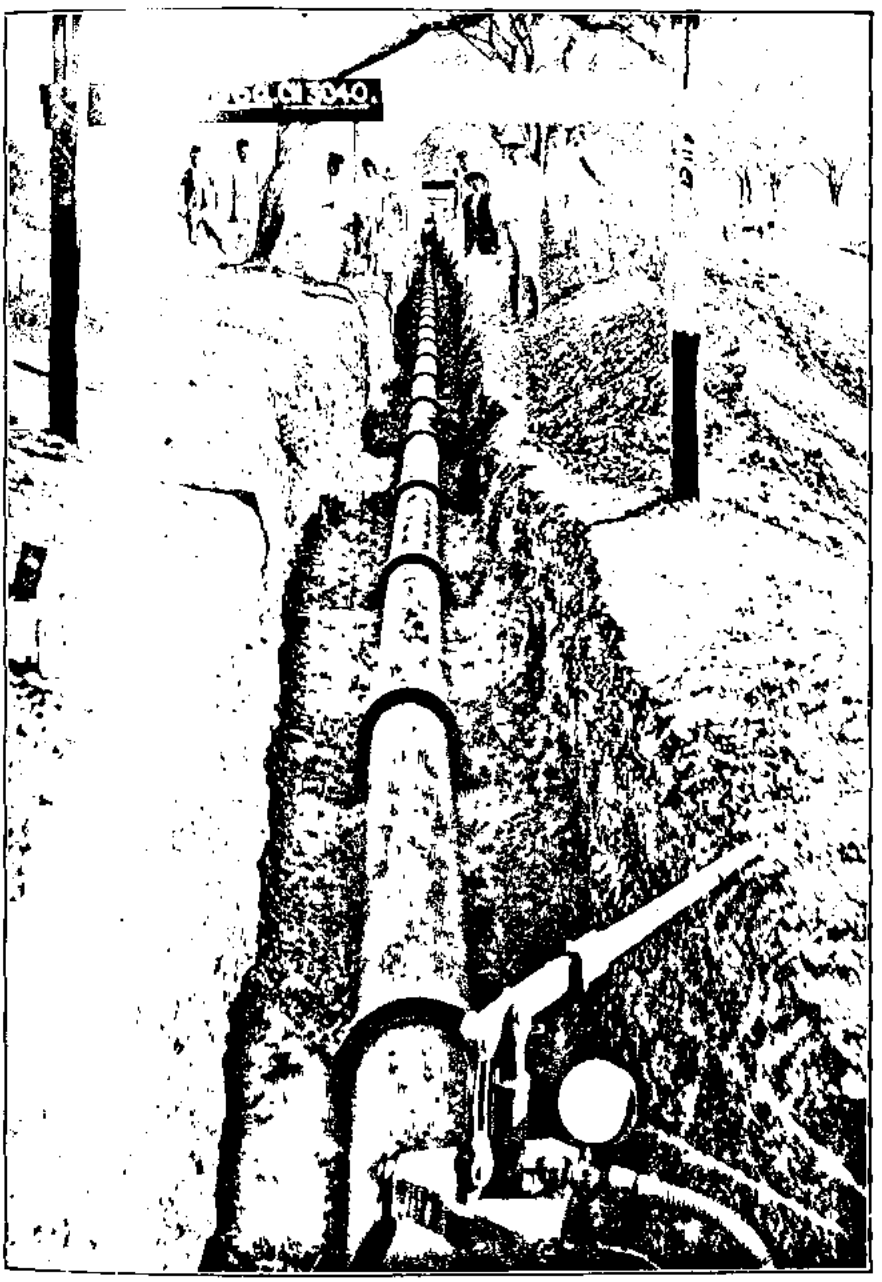
Work in progress.



POONA DRAINAGE IMPROVEMENT SCHEME.

Photo- showing jointing and packing arrangements for Hume Concrete pipes

Date of photograph	...	23rd April 1929.
Date of commencement of the work	...	15th December 1928
Work completed or in progress	...	In progress.



NANDURBAR WATER SUPPLY GRAVITATION MAIN

GRAVITATION MAIN FOR TOKERTHALA

View showing a Section of 10 C.I. Main under Hydraulic Test.

Date of photograph	28th February 1929
Date of commencement of the work	November 1928.
Work completed or in progress	In progress

G.I.P. 3—6

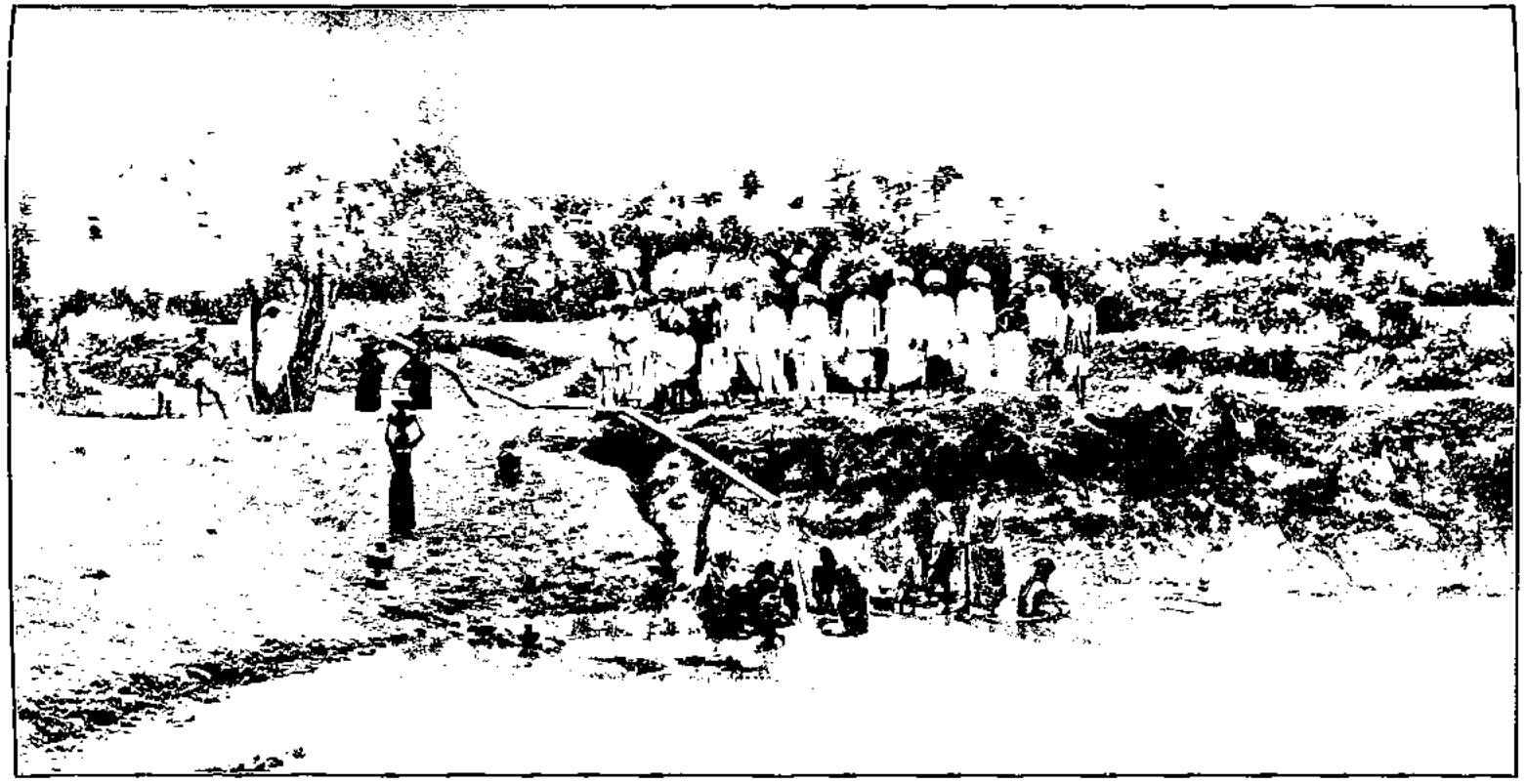
BORING AT CHALODA.

Branch	...	Public Health.
Cost	...	Rs. 12,680.
Time of Construction	...	5 months.
Discharge	...	6,48,000 gallons per day.
Whether pumped or artesian flow	...	Artesian.

G.P.Z. P. 1938

BORING AT AMARPURA

Branch		Public health.
Cost	...	Rs. 11,325.
Time of construction ...	...	4 months.
Discharge	...	4,79,520 gallons per day.
Whether pumped or artesian flow		Artesion.



BORING AT RUPAL

Branch	Public health
Cost	Rs. 9,441.
Time of construction ...	4 months
Discharge ...	40,320 gallons per day.

Public Health, Water Supply, Drainage and Boring Works.—

During the year designs and specifications were prepared for pumping plants for Hyderabad, Jacobabad and Low Level Pumping Stations of the Poona Drainage Works. The Assistant Mechanical Engineer supervised the installations of the new pumping plants at Pandharpur and Jalgaon. He also inspected the pumping machinery at Karad, Matheran, Uran, Dharwar, Kapadwanj and Surat and supervised the working of the Surat plant during the yield tests of the new infiltration works. A large new pumping unit erected at Ahmedabad Water Pumping station was tested for the Ahmedabad Municipality. Similar tests were conducted at Uran, Dharwar, Nasik Jail, Kapadwanj and other places.—

The water-supply scheme at Nasik Road Central Prison was in progress and those at the Dharwar Head Quarters Police Lines and at Uran were nearly completed. Improvements to water supply at Pandharpur, Barsi, Nipani, Jalgaon, Jacobabad, Dholka and Kapadwanj were carried out.

Drainage works at Tando Adam, Kapadwanj, Dhulia, Sholapur, and Gadag-Bettigeri were carried out.

Boring operations for water supplies were in progress at Aden, Amarapura, Asalgaon, Chaloda, Gunjala, Kalyangadh, Koth and Zinzara.

About 51 schemes for water supply and drainage were investigated during the year. The more important of them were the following:—

Water-supply schemes at Shingnapur, Satara City, Islampur, Sholapur, Ahmednagar, Hyderabad, Lonavla, Ratnagiri, Junnar, Khed, Rohri, Bhusawal, Dohad, Karachi Artillery Maidan, Talegaon Dabhade and Talegaon Dhamdhere.

Drainage schemes at Malegaon, Andheri, Amalner, Bhusawal, Bandra, Jalgaon, Trimbak, Nasik City, Kotri and Larkana.

F.—Technical Papers.

The following ten Public Works Department Technical Papers were issued during the year:—

(15) Notes on Standing Wave Flumes and Flume Meter Falls, by C. C. Inglis, Executive Engineer, Special Irrigation Division.

(18) Note on the use of Hydro-Electric Power by small industries in Switzerland, Norway and Sweden, by F. O. J. Roose, M.I.M.E., M.I.E.E., Electrical Engineer to Government.

(19) Note on the design of distributaries and their outlets in the Bombay Deccan, by C. C. Inglis, B.A.I., M.Inst.C.E., Executive Engineer, Special Irrigation Division.

(20) Note dated November 1927 on "Model experiments to ascertain the effect of partial lining of the Malegaon Cut" in miles 38 and 39 of the Nira-Left Bank Canal, by C. C. Inglis, B.A.I., M.Inst.C.E., Executive Engineer, Special Irrigation Division, and D.V. Joglekar, B.E., Assistant Engineer.

(21) Note on the outturn and profit from sugarcane crops grown in the Deccan Canal Tracts, by C. C. Inglis, B.A.I., M.Inst.C.E., Executive Engineer, Special Irrigation Division.

(22) Note on Experiments carried out at the Hydraulic Testing Station at Distributary No. 5, Mutha Right Bank Canal, near Poona with a Lindlay type Standing Wave Flume by C. C. Inglis, B.A.I., M.Inst.C.E., Superintending Engineer, Irrigation Development and Research Circle, Bombay, with the assistance of D. V. Joglekar, B.E., Assistant Engineer.

(23) A note on Standing Wave Pipe Outlets by C. C. Inglis, B.A.I., M.Inst.C.E., Superintending Engineer, Irrigation Development and Research Circle, Bombay.

(24) Report on Land Drainage Experiments at Baramati by C. C. Inglis, B.A.I., M.Inst.C.E., Superintending Engineer, Irrigation Development and Research Circle, Bombay.

(25) Moduling operations on Distributary No. 8, Nira Left Bank Canal, and application of the results to other distributaries by C. C. Inglis, B.A.I., M.Inst.C.E., Superintending Engineer, Irrigation Development and Research Circle, Bombay, with D. V. Joglekar, Assistant Engineer.

(26) Reports on tests made on a model of the group of Regulators at Oderolal at mile 169 approximately of the Rohri Main Canal, Sind, by C. G. Hawes, M.C., B.Sc. (Lond.), A.C.G.I., A.M.Inst.C.E., Executive Engineer, Central Designs Division, Karachi, and C. C. Inglis, B.A.I., A.M.Inst.C.E., Superintending Engineer, Irrigation Development and Research Circle, Poona.

G.—Railways.

The Railway lines in the Bombay Presidency are not administered by the Bombay Government but are under the direct control of the Railway Board. The Railway Board has also the control of the Railway lines in the Indian States within the Bombay Presidency.

2. The total length of railways open for traffic in the Bombay Presidency, including Sind, was the same as that for the previous year, *viz.*, 5,689·59 miles, as no new lines were opened for traffic during the year under review.

3. (*i*) The construction of the Boriavi-Vadtal and Jambusar-Kavi Railways were completed (the former line was opened for traffic from 18th April 1929).

(*ii*) All the works on the Samni-Dehej Railway were completed with the exception of ballasting and watering arrangements.

(*iii*) All the land required for the construction of the Vasad-Katana Railway was acquired and 90 per cent. of the formation and 40 per cent. of permanent way linking were completed.

(*iv*) The final location of the Belapur-Sheogaon Railway was completed.

(*v*) The construction of the Northern loop, Mehrabpur to Pad Idan, of the Sind Left Bank Feeder Railways was in full swing. As regards the Southern Loop, Nawabshah *via* Sakrand to Tando Adam and the Central chord, Tharushah to Sakrand, the final location survey work was completed.

4. Surveys of the following lines were completed or in progress :—

(1) Bulsar-Dharampur Railway.

(2) Asarva-Kapadwanj Railway.

(3) Conversion from Metre to Broad gauge of the Hyderabad-Chor section.

(4) Railway Lines in the area between Tando Mohammed Khan and Sujawal.

(5) Jhol-Hiral Railway.

(6) Pandharpur-Lonand Extension.

APPENDIX

Statement showing the expenditure on Civil and

Service Head.	Original Works.				
		Outlay.			
	Grant.	As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	Grant.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
50-MILITARY WORKS					
Works	553	91	....	91	80,441
Establishment .. Non-Voted ..	....	....	....	....	....
Establishment .. Voted ..	....	....	....	....	....
Tools and Plant	....	....	....	....	....
Suspense	....	....	....	....	....
Total, Military Works ..	553	91	....	91	80,441
41-CIVIL WORKS, CENTRAL					
Buildings .. Non-Voted ..	1,58,484	1,58,161	....	1,58,161	1,09,023
Buildings .. Voted ..	6,48,507	6,12,051	....	6,12,051	1,98,034
Communications Non-Voted ..	....	....	....	....	1,496
Miscellaneous Voted ..	....	....	....	....	1,100
Establishment .. Non-Voted ..	....	....	....	....	....
Establishment .. Voted ..	....	....	....	....	....
Tools and Plant .. Non-Voted ..	....	....	....	....	....
Tools and Plant .. Voted ..	....	....	....	....	....
Grant-in-aid Voted	....	....	....	....	....
Suspense .. Non-Voted ..	....	....	....	....	....
Suspense .. Voted ..	....	....	....	....	....
Deduct—English cost of Stores and Establishment ..	....	....	....	....	....
Establishment .. Non-Voted					
Loss or gain by Exchange Establishment—Non-Voted ..	....	....	....	....	....
Expenditure in England Non-Voted	....	....	....	....	....
Total, 41-Civil Works, Central ..	8,06,991	7,70,212	....	7,70,212	3,09,653
Carried over ..	8,07,544	7,70,303	....	7,70,303	3,90,094

I

Military Works during the year 1928-29.

Repairs.			Total.			
Outlay.				Outlay.		
As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	Grant.	As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.
7	8	9	10	11	12	13
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
73,763	....	73,763	80,994	73,854	....	73,854
....	....	....	3,058	526	....	526
....	....	....	....	1,807	....	1,807
....	....	....	437	355	....	355
....	....	....	....	....	....	....
73,763	....	73,763	84,549	76,542	....	76,542
1,03,872	....	1,03,872	2,67,507	2,62,033	....	2,62,033
1,91,859	340	1,92,199	8,46,541	8,03,910	340	8,04,250
1,489	....	1,489	1,496	1,489	....	1,489
1,080	....	1,080	1,100	1,080	....	1,080
....	....	....	1,32,784 600	87,457	*—126*	87,331
....	....	....	2,03,832	1,42,209	....	1,42,209
....	....	....	4,918	1,279	....	1,279
....	....	....	26,131	13,022	....	13,022
....	....	....	2,913	2,913	....	2,913
....	....	....	24,600	29,794	....	29,794
....	....	....	....	*—1,414*	....	*—1,414*
....	....	....	*—9,000*	*—7,132*	....	*—7,132*
....	....	....	....	12	....	12
....	....	....	9,000	7,120	....	7,120
2,98,300	340	2,98,640	15,12,422	13,43,772	214	13,43,986
3,72,063	340	3,72,403	15,96,971	14,20,314	214	14,20,528

APPENDIX

Service Head.	Original Works.				
	Grant.	Outlay.			Grant.
		As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Brought forward ..	8,07,544	7,70,303	....	7,70,303	3,90,094
41-CIVIL WORKS, PROVINCIAL					
Buildings .. Reserved ..	59,700	58,646	....	58,646	2,67,000
Buildings .. Transferred ..	8,77,549	11,47,341	68	11,47,409	
Communications	11,69,409	9,53,654	....	9,53,654	52,06,062
Miscellaneous	1,500	6,321	....	6,321	
Establishment—Reserved. Non-Voted ..	....	....	....	....	....
Establishment—Reserved. Voted ..	....	....	....	....	....
Establishment—Transferred. Non-Voted ..	....	....	....	....	....
Establishment—Transferred. Voted ..	....	....	....	....	....
Tools and Plant Reserved ..	....	....	....	....	....
Tools and Plant Transferred ..	....	....	....	....	....
Grant-in-aid	....	....	....	....	....
Suspense	....	....	....	....	....
Deduct—English cost of Stores and Establishment—					
Stores Transferred ..	....	....	....	....	....
Establishment—Transferred. Non-Voted ..	....	....	....	....	....
Establishment—Transferred. Voted ..	....	....	....	....	....
Loss or gain by Exchange—					
Stores ..	....	....	....	....	....
Establishment—Transferred. Non-Voted ..	....	....	....	....	....
Establishment—Transferred. Voted ..	....	....	....	....	....
Expenditure in England—Stores .	....	....	....	....	....
Establishment—Transferred. Non-Voted ..	....	....	....	....	....
Establishment—Transferred. Voted ..	....	....	....	....	....
Total, 41-Civil Works, Provincial.	21,08,153	21,66,962	68	21,66,030	54,73,062
Carried over ..	29,15,702	29,36,265	68	29,36,333	58,63,156

I—*contd.*

Repairs.			Total.			
Outlay.				Outlay.		
As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	Grant.	As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.
7	8	9	10	11	12	13
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
3,72,063	340	3,72,403	15,96,971	14,20,314	214	14,20,528
2,63,857	....	2,63,857	3,26,700	3,22,503	....	3,22,503
15,87,238	....	15,87,238	72,54,520	27,34,579	68	27,34,647
35,60,110	....	35,60,110		45,13,764	....	45,13,764
9,696	....	9,696		16,017	....	16,017
....	....	....	....	19,501	....	19,501
....	....	....	78,500	53,892	....	53,892
....	....	....	14,11,000	4,81,695	....	4,81,695
....	....	....	14,97,601	16,85,305	....	16,85,305
....	....	....	9,800	12,885	....	12,885
....	....	....	1,42,268	2,74,113	....	2,74,113
....	....	....	19,61,980	19,47,847	....	19,47,847
....	....	....	1,41,494	*—10,313*	10,044	*—269*
....	....	....	*—1,00,700*	*—65,260*	....	*—65,260*
....	....	....	*—3,07,000*	*—2,34,321*	*—13,551*	*—2,47,872*
....	....	....	*—20,300*	*—22,683*	*—1,259*	*—23,942*
....	....	....	....	6	26	32
....	....	....	....	441	24	465
....	....	....	....	30	*—1*	29
....	....	....	1,00,700	50,067	15,151	65,218
....	....	....	....	2,33,880	13,527	2,47,407
....	....	....	....	22,653	1,260	23,913
54,20,901	....	54,20,901	1,24,96,570	1,20,36,611	25,289	1,20,61,900
57,92,961	340	57,93,304	1,40,93,541	1,34,56,925	25,503	1,34,82,428

APPENDIX

Service Head.	Original Works.				
		Outlay.			
	Grant.	As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	Grant.
1	2	3	4	5	6
	Rs.	Rs.	Rs.	Rs.	Rs.
Brought forward ..	29,16,702	29,36,265	68	29,36,333	58,63,156
60-CIVIL WORKS					
Buildings	31,66,900	22,77,004	....	22,77,004	....
Communications	12,15,000	7,17,521	....	7,17,521	....
Miscellaneous	....	....	....	....	....
Establishment .. Non-Voted ..	....	....	....	....	....
Establishment .. Voted ..	....	....	....	....	....
Tools and Plant	....	....	....	....	....
Total, 60-Civil Works ..	43,81,900	29,94,525	....	29,94,525	....
District Local Fund ..	....	....	....	....	....
Deposit Contribution ..	....	....	....	....	....
Grand Total ..	72,97,602	59,30,790	68	59,30,858	58,63,156

1—*concld.*

Repairs.			Total.			
Outlay.				Outlay.		
As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.	Grant.	As per accounts for March 1929 final.	Subsequent adjustments by journal entries.	Total.
7	8	9	10	11	12	13
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
57,52,964	340	57,93,304	1,40,93,541	1,34,56,925	25,503	1,34,82,428
....	....	....	31,00,000	22,77,004	....	22,77,004
....	....	....	12,15,000	7,17,521	....	7,17,521
....	....	....	....	....	....	....
....	....	....	....	1,43,417	....	1,43,417
....	....	....	9,45,000	5,13,296	....	5,13,296
....	....	....	1,18,100	71,016	....	71,016
....	....	....	54,45,000	37,22,254	....	37,22,254
....	....	....	....	1,76,159	....	1,76,159
....	....	....	....	20,83,444	....	20,83,444
57,52,964	340	57,93,304	1,95,38,541	1,04,38,782	25,503	1,04,64,285

J. A. M. WILSON,
Deputy Accountant General.

APPENDIX

Statement of Roads not within Municipal boundaries, giving lengths of Local Authorities, respectively

Name of Circle	Name of Divisions	Length of metalled roads maintained by the P. W. D.		Length of unmetalled roads maintained by the P. W. D.	
1	2	3		4	
		M.	Ft.	M.	Ft.
Presidency Proper					
Northern Circle ..	Thana	(a) 458	54	8	660
	Surat	(b) 170	601	15	4,618
	Broach	53	5,178	....	
	Kaira	180	3,710	9	680
	Panch Mahals	150	1,480	17	2,640
	Ahmedabad	(c) 134	21	(d) 69	990
	Total, Northern Circle ..	1,148	403	119	4,308
Central Circle	Poona	(f) 412	2,074	(f) 18	2,380
	Head Quarters Works ..	(g) 24	4,960	(g) 1	1,980
	Satara	(h) 446	3,679	38	4,290
	Sholapur	(i) 223	1,339	....	

Note:—The lengths of Provincial roads included in columns 3 and 4 of the above statement are Presidency are not now required to contribute towards the maintenance of Provincial roads passing through

(*a*) The increase in column 3 is due to the provincialisation of certain new lengths of roads. The Local Board to the Public Works Department and partly to the adjustment of certain lengths of roads omitted by the District Local Board and now having been included by that body.

(*b*) The decrease in column 3 is due to certain lengths of Local Board roads hitherto maintained by increase in column 5 is due partly to certain lengths of Local Board roads having been transferred by metalled during the year. The increase in column 6 is due to certain fresh lengths of roads having been

(*c*) The increase in column 5 and the decrease in column 6 is due to certain lengths of unmetalled

(*d*) The increase in column 5 is due partly to certain unmetalled roads having been metalled and is due to certain new lengths of unmetalled roads having been added by the Board.

(*e*) The increase in column 3 and the decrease in column 4 is due partly to certain unmetalled The decrease in column 5 is due to certain road having been transferred by the Board to the metalled during the year.

(*f*) The decrease in columns 3, 4 and 9 is due to the actual measurements of the lengths of roads

(*g*) The decrease in column 3 and the increase in column 9 is partly due to certain length having now

(*h*) The increase in column 3 and the decrease in column 9 is due to certain length previously shown to certain length having now been correctly shown under unmetalled roads. The increase in column 6 addition of a small length to a District Local Board road.

(*i*) The decrease in column 3 and the increase in column 9 is due to the starting point of certain Post Office. The increase in column 5 and the decrease in column 6 is due to certain lengths having

II

metalled and unmetalled roads maintained by the Public Works and during the year 1928-29.

Length of metalled roads maintained by Local authorities		Length of unmetalled roads maintained by Local authorities		Total length of metalled roads		Total length of unmetalled roads		Remarks			
								Metalled roads maintained by the P. W. D. in Municipal limits		Unmetalled roads maintained by the P. W. D. in Municipal limits	
5		6		7		8		9		10	
M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.
(a) 355	4,229	(a) 90	2,789	808	4,283	98	3,449	13	1,110	....	
(b) 121	4,019	(b) 254	4,305	201	4,620	270	3,733	....		....	
32	4,070	89	660	86	3,068	89	660	1	1,020	....	
(c) 50	3,202	(c) 15	1,207	231	1,641	24	1,887	10	3,218	....	
(d) 18	4,456	(d) 20	4,298	175	658	38	1,658	1	1,080	....	
(e) 56	4,000	(e) 270	2,319	190	4,021	339	3,309	....		....	
636	2,858	740	5,108	1,784	3,251	860	4,136	26	2,057	....	
82	4,330	1,407	2,745	495	1,124	1,425	5,125	(f) 38	1,785	....	
....		.....		24	4,900	1	1,980	(g) 8	77	....	
(h) 197	4,200	(h) 1,241	2,910	644	2,589	1,280	1,320	(h) 5	4,531	....	
(i) 120	2,235	(i) 489	4,620	352	3,624	489	4,620	(i) 19	4,258	....	

exclusive of the portions passing through the municipal limits. The municipalities in the Bombay their limits and the lengths of these are shown in the "Remarks" Column.

decrease in column 5 is partly due to certain lengths of roads having been transferred from the District by actual measurements. The increase in column 6 is due to certain lengths of roads previously

the Public Works Department having been handed over to the Local Board for maintenance. The the Public Works Department to the Local Board and partly to certain unmetalled roads having been constructed or taken up by the Board for maintenance.

roads having been metalled during the year.

partly to certain new lengths of roads having been added by the Board. The increase in column 6

road having been metalled and partly to the adjustment of certain lengths by the actual measurements. Municipality. The decrease in column 6 is due to certain unmetalled length of road having been

having been taken recently.

been correctly shown under the Municipal limits and partly to actual measurements taken.

as being within municipal limits having now been correctly shown. The decrease in column 5 is due is partly due to this and partly to new roads having been taken over for maintenance and to the

road having been fixed from the new Post Office at Sholapur; the old mileage being from old (camp) been metalled during the year.

APPENDIX

Name of Circle	Name of Divisions	Length of metalled roads maintained by the P. W. D.		Length of unmetalled roads maintained by the P. W. D.	
1	2	3		4	
Presidency Proper—contd.		M.	Ft.	M.	Ft.
Central Circle—*contd.*	Ahmednagar	(*j*) 223	1,771	(*j*) 67	3,092
	Nasik	514	3,778	0	1,065
	East Khandesh	(*l*) 360	2,054	(*l*) 3	..
	West Khandesh	332	5,200	2	3,960
	Total, Central Circle ..	2,037	3,644	131	867
Deccan Irrigation Circle ..	Lake Whiting	51	3,968	....	
	Malsiras	95	253	69	5,166
	Total, Deccan Irrigation Circle ..	146	4,221	69	5,166
Irrigation Development and Research Circle.	Nira Left Bank Canal ..	63	4,145	....	
	Special Irrigation	....		....	
	Total, Irrigation Development and Research Circle.	63	4,145	....	
Southern Circle ..	Belgaum	(*n*) 644	610	(*n*) 123	2,529
	Dharwar	(*n*) 521	5,136	(*n*) 89	760
	Ratnagiri	441	4,679	....	
	Kanara	(*p*) 401	1,591	(*p*) 194	430
	Total, Southern Circle ..	2,009	1,456	406	3,719
	Total for Presidency ..	6,005	3,399	727	3,500

(*j*) The decreases in columns 4 and 5 and the increases in columns 3 and 9 are partly due to re-measure

(*k*) The increase in column 5 and the decrease in column 6 is partly due to transfer of certain

(*l*) The increase in column 3 is partly due to the addition of certain new roads and partly to the new road passing through municipal limit.

(*m*) The increases in columns 5 and 6 are partly due to new lengths having been constructed during the

(*n*) As a result of the abolition of the Bijapur Division, the roads in that Division were transferred 1928-29 the roads in these Divisions were jointly re-measured for the sake of accuracy and the figures

(*o*) The length as now reported by the District Local Boards are shown in columns 5 and 6.

(*p*) The increases in columns 3 and 9 and the decrease in columns 4 and 10 are due to certain lengths of

II—*contd.*

Length of metalled roads maintained by local authorities		Length of unmetalled roads maintained by local authorities		Total length of metalled roads		Total length of unmetalled roads		Remarks			
								Metalled roads maintained by the P. W. D. in Municipal limits		Unmetalled roads maintained by the P. W. D. in Municipal limits	
5		6		7		8		9		10	
M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.
(j) 405	482	835	3,960	728	2,253	898	1,712	(j) 0	1,705	....	
(k) 180	278	(k) 841	4,758	650	4,051	851	543	18	4,491		1,575
199	3,986	250	3,694	559	760	262	3,094	(l) 10	1,063		3,960
(m) 39	518	(m) 40	3,248	372	447	43	1,928	8	4,188	....	
1,100	324	4,010	3,615	3,827	3,963	4,747	4,482	120	978	1	255
....		....		51	3,968	....		....		....	
....		....		95	253	69	5,166	3	2,017	....	
....		....		146	4,221	69	5,166	3	2,617	....	
..	4,200	....		64	3,155	....		....		....	
....		....		....		....		....		....	
..	4,290	....		64	3,155	....		....		....	
(o) 427	2,041	(o) 490	3,457	1,071	3,551	554	706	(n) 20	1,442	(n)	
(o) 417	823	(o) 168	3,960	933	679	257	4,629	(n) 16	3,239	(n) 5	1,194
(o) 311	700	(o) 836	4,405	758	99	836	4,405	11	2,670	....	
(o) 44	2,297	(o) 525	4,743	445	3,888	719	5,173	(p) 19	4,055	(p) 3	4,403
1,200	1,481	1,962	634	3,209	2,937	2,368	4,353	69	855	9	317
3,027	3,073	7,319	4,077	0,033	1,792	8,047	2,297	218	2,127	10	572

ments of certain roads and partly to the addition of certain lengths of roads.

unmetalled roads to metalled roads and partly to the addition and transfer of certain lengths of roads.

metalling of certain lengths of unmetalled roads. The increase in column 9 is due to the length of a

year and partly to the correct lengths of existing roads as now communicated by the District Local Boards.

partly to the Belgaum Division and partly to the Dharwar Division. Consequently during the year entered in columns 3, 4, 9 and 10 represent the correct lengths thus arrived at.

unmetalled roads having been metalled during the year.

APPENDIX

Name of Circle	Name of Divisions	Length of metalled roads maintained by the P. W. D.		Length of unmetalled roads maintained by the P. W. D.	
1	2	3		4	
Sind		M.	Ft.	M.	Ft.
Indus *Left* Bank Circle ..	Nasrat Canals	3	4,483	97	1,320
	Hyderabad Canals	(r) 7	4,498	(r) 118	3,880
	Fulell Canals	3	2,640	56	2,339
	Eastern Nara	....		60	3,000
	Northern Jamrao Canal ..	....		(t) 334	1,980
	Southern Jamrao Canal ..	....		(u) 670	..
	Total, Indus Left Bank Circle..	15	1,001	1,337	2,019
Indus Right Bank Circle ..	Karachi Buildings	29	2,640	88	2,640
	Karachi Canals	18	2,640	4	4,620
	Western Nara	(w) 12	4,290	(w) 16	3,300
	Ghar Canals	....		....	
	Shikarpur Canals	(y) 13	4,455	(y) 9	4,542
	Begari Canals	....		30	2,640
	Total, Indus Right Bank Circle..	74	3,465	150	1,002
	Total for Sind ..	89	4,526	1,487	4,821
	Grand total ..	6,095	2,645	2,215	3,041

(q) The increase in column 5 and the decrease in column 6 is due to certain lengths of roads having
(r) The increases in columns 3 and 5 and the decreases in 4 and 6 are due to certain lengths of
(s) The increase in column 5 and the decrease in column 6 is due to certain lengths of unmetalled roads
(t) The increase in column 4 is due to the extension of service roads.
(u) The decrease is due to the counting of certain service roads.
(v) The increase in column 5 and the decrease in column 6 is due to certain lengths of unmetalled
(w) The increases in columns 3 and 5 and the decreases in columns 4 and 6 are due to certain lengths
(x) The difference is due to revision and re-adjustment made by the District Local Board.
(y) The difference is due to certain lengths of unmetalled roads having been metalled during
(z) The difference is due to revision and re-adjustment made by the District Local Board during

II—*concld.*

Length of metalled roads maintained by local authorities		Length of unmetalled roads maintained by local authorities		Total length of metalled roads		Total length of unmetalled roads		Remarks			
								Metalled roads maintained by the P. W. D. in Municipal limits		Unmetalled roads maintained by the P. W. D. in Municipal limits	
5		6		7		8		9		10	
M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.	M.	Ft.
(q) ..	3,274	(q) 021	..	4	2,477	1,018	1,320	....		....	
(r) 11	1,320	(r) 608	1,320	19	528	726	5,200	....		....	
(s) 4	3,300	(s) 760	1,980	8	660	816	4,319	....		....	
(s) 0	..	(s) 2,458	1,980	9	..	2,519	660	....		....	
5	..	221	1,320	5	..	555	3,300	....		....	
....		285	2,640	....		905	2,640	....		....	
30	2,514	5,204	3,960	45	3,675	6,542	1,599	....		....	
(v) 9	2,640	(v) 180	4,950	39	..	269	2,310	....		....	
1	1,650	978	2,310	19	4,290	983	1,650	....		....	
(w) 2	3,960	(w) 1,515	4,700	15	2,970	1,532	2,720	....		....	
..	3,600	(x) 759	2,909	..	3,600	759	2,909	....		....	
10	2,340	1,027	1,070	24	2,015	1,037	332	....		....	
....		(z) 1,180	3,960	....		1,149	1,320	....		....	
24	4,130	5,580	4,059	99	2,315	5,731	681	....		....	
55	1,404	10,785	2,739	145	710	12,273	2,280	....		....	
3,082	5,187	18,105	1,536	9,178	2,502	20,320	4,577	218	2,127	10	572

been metalled during the year.
unmetalled roads having been metalled during the year.
having been metalled during the year.

road having been metalled during the year.
of unmetalled road having been metalled during the year.

the year.
the year.

APPENDIX

Statement showing the expenditure on Provincial Buildings and

1	1921-22.	
	41 C. W. Provincial. 2	60-C. W. 3
	Rs.	Rs.
(i) Expenditure on buildings for original works in the Presidency proper	70,17,468	....
(ii) Do. do. Sind ..	12,90,750	....
	83,08,218	
(iii) Expenditure on buildings for maintenance in the Presidency proper	11,03,937	....
(iv) Do. do. Sind ..	1,64,210	....
	12,68,147	
(v) Expenditure on metalled Provincial roads for original works in the Presidency proper	19,39,046	....
(vi) Do. do. Sind ..	42,695	....
	19,81,741	
(vii) Expenditure on unmetalled Provincial roads for original works in the Presidency proper	5,00,155	....
(viii) Do. do. Sind ..	....	....
	5,00,155	
(ix) Expenditure on metalled Provincial roads for maintenance in the Presidency proper	19,85,510	....
(x) Do. do. Sind ..	32,825	....
	20,18,335	
(xi) Expenditure on unmetalled Provincial roads for maintenance in the Presidency proper	2,53,711	....
Do. do. Sind ..	95,939	....
	3,49,650	

III.

Roads in the Presidency proper and in Sind from 1921-22 to 1928-29.

1922-23.		1923-24.		1924-25.	
41-C. W. Provincial	60-C. W.	41-C. W. Provincial	60-C. W.	41-C. W. Provincial	60-C. W.
4	5	6	7	8	9
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
18,40,250	21,36,237	12,74,148	46,74,102	11,72,871	36,09,799
2,77,527	7,11,895	1,70,426	5,52,140	3,18,186	8,82,055
21,17,777	28,48,132	14,44,574	52,26,242	14,91,057	44,91,854
13,79,087	....	15,99,041	....	14,69,217	....
1,51,421	....	1,78,426	....	1,91,990	....
15,30,508		17,77,467		16,61,207	
15,22,488	6,94,035	10,92,068	4,54,014	5,36,719	24,16,810
98,466	....	73,471	....	26,685	1,39,015
16,20,954	6,94,035	11,65,539	4,54,014	5,63,404	25,57,825
97,110	20,903	72,046	20,943	63,591	1,14,266
....	....	170	....	....	....
97,110	20,903	72,216	20,943	63,591	1,14,266
24,27,684	....	26,69,387	....	27,73,938	....
17,889	....	16,291	....	13,996	....
24,45,573		26,85,678		27,87,934	
2,35,632	....	2,63,378	....	2,81,022	....
1,27,690	....	1,56,482	....	1,30,644	....
3,63,322		4,19,860		4,11,666	

APPENDIX

—	1925-26.	
	41-C. W. Provincial.	60-C. W.
1	10	11
	Rs.	Rs.
(i) Expenditure on buildings for original works in the Presidency proper	12,24,807	39,38,192
(ii) Do. do. Sind ..	4,53,035	13,10,549
	16,77,842	52,48,741
(iii) Expenditure on buildings for maintenance in the Presidency proper	15,22,903	....
(iv) Do. do. Sind ..	1,74,310	....
	16,97,213	
(v) Expenditure on metalled Provincial roads for original works in the Presidency proper	8,30,136	11,41,309
(vi) Do. do. Sind ..	−102	30,035
	8,30,034	11,71,344
(vii) Expenditure on unmetalled Provincial roads for original works in the Presidency proper	1,36,210	33,048
(viii) Do. do. Sind ..	13,043	20,788
	1,49,253	53,836
(ix) Expenditure on metalled Provincial roads for maintenance in the Presidency proper	28,80,514	....
(x) Do. do. Sind ..	24,444	....
	29,04,958	
(xi) Expenditure on unmetalled Provincial roads for maintenance in the Presidency proper	2,53,438	....
(xii) Do. do. Sind ..	1,31,892	....
	3,85,330	

III—*contd.*

1926-27		1927-28		1928-29	
41-C.W. Provincial	60-C. W.	41-C. W. Provincial	60-C. W.	41-C. W. Provincial	60-C. W.
12	13	14	15	16	17
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
22,22,421	17,71,645	9,72,027	13,90,972	9,61,174	19,07,442
7,27,916	7,15,071	3,47,891	3,70,005	2,44,881	3,69,562
29,50,337	24,86,716	13,19,918	17,60,977	12,06,055	22,77,004
15,95,217	....	17,01,033	....	16,43,248	....
2,06,962	....	2,46,822	....	2,07,847	....
18,02,179		19,50,855		18,51,095	
11,19,552	4,09,201	7,95,102	5,26,052	7,40,068	5,42,195
11,759	99,541	81,725	1,74,995	98,454	1,75,326
11,31,311	5,08,742	8,76,827	7,01,047	8,38,522	7,17,521
2,50,893	....	1,65,007	....	1,05,960	....
661	....	12,313	....	9,172	....
2,51,554		1,77,320		1,15,132	
30,08,552	....	32,12,327	....	30,99,797	....
78,320	....	57,076	....	65,883	....
31,77,181		32,69,403		31,65,680	
2,55,920	....	2,82,958	....	2,67,776	....
89,724	....	1,52,444	....	1,26,654	....
3,45,644		4,35,402		3,94,430	

APPENDIX

Statement showing the expenditure on District Local Board Roads from the year

1	1921-22* 2	1922-23 3	1923-24 4
	Rs.	Rs.	Rs.
(1) Expenditure on metalled District Local Board roads for original works in the Presidency proper ..	1,80,641	2,11,788	2,45,635
(2) Expenditure on metalled District Local Board roads for original works in Sind	16,103	5,039	14,611
	1,96,744	2,16,827	2,60,246
(3) Expenditure on unmetalled District Local Board roads for original works in the Presidency proper ..	1,60,724†	94,250	1,28,734
(4) Expenditure on unmetalled District Local Board roads for original works in Sind	98,877	42,321	49,660
	2,59,601	1,36,571	1,78,394
(5) Expenditure on metalled District Local Board roads for maintenance in the Presidency proper ..	4,51,946	5,68,704	5,44,584
(6) Expenditure on metalled District Local Board roads for maintenance in Sind	7,455	4,924	2,901
	4,59,401	5,73,718	5,47,485
(7) Expenditure on unmetalled District Local Board roads for maintenance in the Presidency proper ..	5,18,795	4,55,687	5,30,217
(8) Expenditure on unmetalled District Local Board roads for maintenance in Sind	2,85,820	2,41,091	2,89,435
	8,04,615	6,96,778	8,19,652
(9) Expenditure on metalled and unmetalled District Local Board roads (original works and repairs) in the Ratnagiri District not included above	37,924	22,043	30,365

* The figures in column 2 against items (1), (3), (5) and (7) do not include those
† This figure does not include the expenditure in the West Khandesh District as the

IV.

in the Presidency proper and Sind (original Works and Repairs) 1921-22 to 1928-29.

1924-25	1925-26	1926-27	1927-28	1928-29
5	6	7	8	9
Rs.	Rs.	Rs.	Rs.	Rs.
1,85,618	2,22,085	2,14,017	2,98,423	3,29,532
10,279	73,201	1,33,542	77,391	1,54,304
1,95,897	2,95,886	3,47,559	3,75,814	4,83,836
1,17,791	1,78,703	2,07,654	3,18,374	2,72,491
40,807	78,637	92,034	85,337	40,952
1,58,688	2,57,340	3,89,688	4,03,711	3,13,443
5,08,349	6,21,726	7,48,360	7,59,703	8,51,468
8,951	3,295	2,073	5,405	12,652
5,77,300	6,25,021	7,50,433	7,65,108	8,64,120
4,92,900	6,36,110	6,79,365	5,91,524	4,57,202
2,64,811	4,00,788	3,88,198	4,41,126	4,57,168
7,57,711	10,36,898	10,67,563	10,32,650	9,14,370
30,598	46,983	36,010	38,379	41,785

for the Sholapur District as the Commissioner reports that they are not available.
Commissioner reports that the information is not available.

APPENDIX

Statement showing expenditure on establishment in the Roads and year 1921-22 to 1928-29 and percentage on the total outlay on

Year	Expenditure on Establishment in the Roads and Buildings Branch						
	41—Civil Works—Provincial (Transferred and Reserved)	60—Civil Works	41—Civil Works—Central	50—Military Works	Deposit works	Total	Percentage on the total outlay on works and repairs in the Roads and Buildings Branch
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1921-22 ..	29,06,955	..	1,08,683	45,258	2,84,992	34,35,888	19·26
1922-23 ..	20,14,640	8,34,450	1,78,163	71,481	77,143	31,75,877	20·79
1923-24 ..	15,84,488	8,10,645	67,892	33,560	6,88,354	31,89,939	19·88
1924-25 ..	16,89,892	12,25,632	1,19,721	27,802	2,52,556	33,15,603	19·67
1925-26 ..	18,89,417	12,05,078	1,01,870	69,040	2,58,535	35,23,955	20·66
1926-27 ..	25,30,286	5,97,486	1,68,896	5,882	3,94,389	36,96,939	23·76
1927-28 ..	21,99,448	5,59,107	1,49,132	5,042	2,07,270	32,09,099	24·96
1928-29 ..	22,40,393	6,56,713	2,29,540	2,240	2,56,180	33,85,066	25·03

Note.—The percentage of the establishment charges on the cost of works and repairs in the Irrigation largely that the establishment charges in the Irrigation Branch include the cost of Special Revenue and the Deccan which has no connection with the execution of works and repairs, and that these ment including the *control and distribution of water*, which is debited in the accounts to "revenue in the accounts to "revenue management" are deducted from the total cost of establishment in the

V.

Buildings and the Irrigation Branches of the P. W. D. from the works and repairs during that period in both the Branches.

Expenditure on Establishment in the Irrigation Branch						Total Establishment charges in the Roads and Buildings and Irrigation Branches	Percentage on the total outlay of works and repairs in Roads and Buildings and Irrigation Branches.
55—Construction of Irrigation Navigation Embankment and Drainage Works	XIII-Works for which capital accounts are kept	15-Other Revenue Expenditure financed from Ordinary Revenues	Deposit Works	Total establishment charges	Percentage on the total outlay on works and repairs in the Irrigation Branch		
9	10	11	12	13	14	15	16
Rs.	Rs.	Rs.	Rs.	Rs.		Rs.	
11,53,784	13,86,960	6,68,651	2,770	32,11,115	33·59	66,47,003	24·26
14,20,751	13,44,901	5,34,327	1,993	33,01,972	32·22	64,77,849	25·38
21,87,793	14,43,222	4,32,013	2,056	40,65,084	33·89	72,55,023	25·37
29,10,785	17,37,724	5,26,361	492	51,75,362	28·73	84,91,025	24·35
32,21,647	17,99,343	5,19,223	2,681	55,42,809	21·62	90,66,854	21·23
35,56,959	18,03,385	5,94,989	3,207	59,63,540	30·56	96,60,479	27·54
36,98,956	19,20,778	7,30,812	3,847	64,03,833	26·00	96,13,887	25·64
39,04,670	21,35,939	8,16,601	2,750	66,59,960	25·51	1,00,45,026	25·35

Branch (column 14) is higher than that in the Roads and Buildings Branch (column 8). The reason is Establishment employed entirely on "revenue management" work on certain canal systems in Sind charges also include cost of part of the time of Irrigation establishment spent on revenue manage-management" and not to execution of works and repairs. If these establishment charges debited Irrigation Branch the percentage on the cost of works and repairs will not be so divergent.

BOMBAY : PRINTED AT THE GOVERNMENT CENTRAL PRESS.

with financial assistance
Government of Maharash
on 22 July 2017

BOMBAY PRESIDENCY

PUBLIC WORKS DEPARTMENT

DIVISION MAP

1928-29